

# **Final Environmental Impact Report**

**SCH# 2022110504**

## **Volume 7**

### **Chapter 7 – Response to Comments**

#### **BULLHEAD SOLAR PROJECT**

**by EDF Renewables, LLC (PP22404)**

GPA No. 8, Map No. 214; CUP No. 48, Map No. 214;  
CUP No. 49, Map No. 214; Ag Exclusion Map No. 214;  
SPA No. 42, Map No. 231; SPA No. 43, Map 231;  
ZCC No. 158, Map No. 231; CUP No. 121, Map No. 231;  
CUP No. 122, Map No. 231; Vacation Public Access Easements 03 098  
231, Map No. 232; SPA No. 35, Map No. 232;  
SPA No. 36, Map No. 232; ZCC No. 36, Map No. 232;  
CUP No. 49, Map No. 232; CUP No. 50, Map No. 232.



Kern County  
Planning and Natural Resources Department  
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February 2024

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## 7.1 Introduction

### 7.1.1 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 Bullhead Solar 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.

### 7.1.2 Environmental Review Process

A Notice of Preparation (NOP)/Initial Study (IS) (SCH No. 2022110504) was circulated for a 30-day public review period beginning on September 30, 2021, and ending November 1, 2021. Twelve individual written comment letters were received and used in the preparation of the Draft EIR.

The Draft EIR for the proposed project was circulated for a 45-day public review period beginning on November 30, 2023, and ending January 15, 2024. Letters received by January 17, 2024 were considered to be received during the public comment period, due to January 15, 2024 falling on Martin Luther King Jr. Day, a Kern County holiday. A total of fourteen comment letters were received on the Draft EIR, including three that were received after January 17, 2024.

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 2, Part 2, Chapter 7 of the Draft EIR. Volumes 1, 2, 3, 4, 5, and 6 together constitute the Final EIR.

## 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 underline and text removed from the Draft EIR is shown with ~~striketrough~~. The revisions, as outlined below, fall within the scope of the original project analysis included in the Draft EIR and do not result 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).

**Global Changes:** The following “global changes” are intended to apply to the Draft EIR in all instances where such text shown below appears within the document. The text revisions are not repeated herein for each occurrence within the Draft EIR in order to streamline this document.

- Frame for figures updated to correct case number from "~~Vacation Public Access Easements 03 098 232~~" to "Vacation Public Access Easements 03 098 231"

## Chapter 1, Executive Summary

### Table 1-3, Noise, Page 1-18

Mitigation Measure Numbering correction: MM 4.12-1 through ~~MM 4.12-7~~ MM 4.12-6

### Table 1-7, Biological Resources, Impact 4.4-6, Page 1-61

#### Impact 4.4-6:

The proposed project would not conflict with any other adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan. Impacts would be less than significant. ~~No impact would occur.~~

### Table 1-7, Biological Resources, Mitigation Measure MM 4.4-3, Pages 1-45 and 1-46

~~MM 4.4-3: Prior to any ground disturbing activities in the active season for Crotch’s bumble bee (February 1 through October 31), a qualified biologist (a biologist holding an MOU for Crotch’s bumble bee) should conduct a preconstruction survey within habitats identified as having a moderate potential for Crotch’s bumble bee to occur. The biologist should perform meandering transects on three separate days over a 14-day period prior to construction within the planned activity footprint. To the extent possible, surveys should be conducted between 9am and 1pm, when temperatures are between 65-90F, and when wind speeds are less than 8 miles per hour to encompass the period when bees are most active. The biologist should collect photographic vouchers of bumble bees (i.e., genus *Bombus*) to the extent possible through photographing the bee on floral resources, or by netting and chilling the specimens conducted by a biologist holding an MOU for the Crotch’s bumble bee) and obtaining diagnostic photographs of the captured bees. During the blooming period immediately prior to construction, a qualified biologist (a biologist holding an MOU for Crotch’s bumble bee) shall conduct focused surveys for CBB and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). Survey data should be captured on the California bumble bee atlas (CBBA) data sheet or a project specific data sheet if it encompasses the same CBBA data sheet information~~ (available at: [https://www.cabumblebeatlas.org/uploads/1/1/6/9/116937560/cabba\\_data\\_sheet\\_2023.pdf](https://www.cabumblebeatlas.org/uploads/1/1/6/9/116937560/cabba_data_sheet_2023.pdf)). Survey results should be provided to the CDFW and Kern County Planning and Natural Resources Department.

If a suspected or confirmed Crotch’s bumble bee is detected in the project area, every effort shall be made to find the nest. If a nest is found in the project area, the biologist shall delineate a 50-foot ‘no-activity’ buffer around the nest until the nest senesces (becomes inactive and is no longer in use). If the species is identified within the project site and the buffer cannot be implemented effectively to avoid take, the



applicant will consult with CDFW. If no suspected or confirmed Crotch's bumble bee is detected in the planned activity footprint, construction could proceed without further measures.

### **Table 1-7, Biological Resources, Mitigation Measure MM 4.4-6, Pages 1-48 through 1-50**

**MM 4.4-6:** During construction and decommissioning, the Lead Biologist or approved biological monitor shall monitor all initial ground-disturbance activities and remain on-call throughout construction/decommissioning in the event a special-status species wanders into the project site.

Preconstruction surveys for special-status species shall be conducted within the project boundaries by the Lead Biologist or approved biological monitor within 14 days of the start of any vegetation clearing or grading activities. Methodology for preconstruction surveys shall be appropriate for each potentially occurring species-status species and shall follow U.S. Fish and Wildlife and/or California Department of Fish and Wildlife preconstruction survey 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 being disturbed. The Lead Biologist may use a variety of approaches (including but not limited to monitoring, track plates, and direct observation) and evidence (including burrow characteristics and presence of sign such as scat and tracks) to determine burrow activity. If any evidence of occupation of the project site special-status species is observed, a buffer shall be established by a qualified biologist that results in sufficient avoidance, as described below.

- a. If desert tortoise are found on-site during subsequent surveys or biological monitoring activities, construction activities shall cease to avoid the potential for take and consultation with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife shall be initiated to obtain the necessary incidental take permit authorizations or provide evidence such a permit is not required
- b. Preconstruction surveys shall be conducted by a qualified biologist for the presence of American badger or desert kit fox dens within 14 days prior to commencement of construction activities. The surveys shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes desert scrub habitats. 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 prior to that portion of the project site disturbed. If potential dens are observed and avoidance is feasible, the following buffer distances shall be established prior to construction activities:

- Desert kit fox or American badger potential den: 50 feet.
- Desert kit fox or American badger active den: 100 feet.
- Desert kit fox or American badger natal den: 500 feet.

If active or potentially active dens are identified within the project site and the buffer cannot be implemented to avoid take, the Applicant will coordinate with CDFW for guidance on appropriate take avoidance measures.

~~If avoidance of the potential dens is not possible, the following measures are required to avoid potential adverse effects to the American badger and desert kit fox:~~

~~1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent American badgers or desert kit foxes from re-using them during construction.~~

~~2. If the qualified biologist determines that potential dens may be active, an on-site passive relocation program shall be implemented. This program shall consist of excluding American badgers or desert kit foxes from occupied burrows by installation of one-way doors at burrow entrances, monitoring of the burrow for seven (7) days to confirm usage has been discontinued, and excavation and collapse of the burrow to prevent reoccupation. After the qualified biologist determines that American badgers or desert kit foxes have stopped using the dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.~~

During fencing and grading activities daily monitoring reports shall be prepared by the monitoring biologists. The Lead Biologist shall prepare a summary monitoring report documenting the effectiveness and practicality of the protection measures that are in place and making recommendations for modifying the measures to enhance species protection, as needed. The report shall also provide information on the overall activities conducted related to biological resources, including the Environmental Awareness Training and Education Program, clearance/pre-activity surveys, monitoring activities, and any observed special-status species, including injuries and fatalities. These monitoring reports shall be submitted to the Kern County Planning and Natural Resources Department and relevant resource agencies, as applicable, on a monthly basis along with copies of all survey reports.

### **Table 1-7, Biological Resources, Mitigation Measure MM 4.4-7, Pages 1-50 through 1-52**

**MM 4.4-7:** Within 14 days prior to the commencement of any ground-disturbing activities the project operator shall conduct preconstruction surveys for desert tortoises within the project area. The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service protocol (2010/2019). If no burrows or tortoises are discovered during preconstruction surveys, no further mitigation is necessary. The desert tortoise is a federally and state threatened species and consequently, impacts that would cause “take” of the species would require the issuance of Incidental Take Permits from both the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to comply with the Federal Endangered Species Act and California Endangered Species Act. If burrows or tortoises are identified on the project site during preconstruction surveys, the project operator shall be required to consult with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife regarding take coverage, and adhere to the following minimum conditions:

- a. Develop a plan for desert tortoise translocation and monitoring prior to project construction. The plan shall provide the framework for implementing the following measures:
  1. If, upon consultation with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, it is determined by both resource agencies that a permanent tortoise proof exclusion fence is required, a fence shall be installed around all construction and operation areas prior to the initiation of earth disturbing activities, in coordination with a qualified biologist. The fence shall be designed in such a manner to allow other wildlife to access through the permanent security fence and be constructed of 0.5-inch mesh hardware cloth and extend 18 inches above ground and 12 inches below ground. Where burial of the fence is not possible, the lower 12 inches shall be folded outward against the ground and fastened to the ground so as to prevent desert tortoise entry. The

fence shall be supported sufficiently to maintain its integrity, be checked at least monthly during construction and operations, and maintained when necessary by the project operator to ensure its integrity. Provisions shall be made for closing off the fence at the point of vehicle entry. Common raven perching deterrents shall be installed as part of the fence construction.

2. An Authorized Biologist shall conduct a preconstruction survey for desert tortoise within the construction site, as well as before and after installation of desert tortoise exclusionary fencing (if required to be installed) and project security fencing. An Authorized Biologist has the appropriate education and experience to accomplish biological monitoring and mitigation tasks and is approved by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. Two surveys without finding any desert tortoises or new desert tortoise sign shall occur prior to declaring the site clear of desert tortoises.

3. All burrows that could provide shelter for a desert tortoise shall be hand-excavated prior to ground-disturbing activities.

4. An Authorized Biologist shall remain on site until all vegetation necessary for the construction of the project is cleared and, at a minimum, conduct site and fence inspections on a monthly basis throughout construction in order to ensure project compliance with mitigation measures.

5. An Authorized Biologist shall remain on-call throughout fencing and grading activities in the event a desert tortoise wanders onto the project site.

6. Mitigation for permanent loss of occupied desert tortoise habitat shall be mitigated at a 1:1 ratio to reduce potential effects to less-than-significant levels. Mitigation can be achieved through purchase of credit from an existing mitigation bank, such as the Desert Tortoise Natural Area, private purchase of mitigation lands, or on-site preservation, as approved by the resource agencies.

b. A Raven Management Plan shall be developed for the project site. This plan shall include at a minimum:

1. Identification of all common raven nests within the project area during construction.

2. Weekly inspections during construction under all nests in the project area for evidence of desert tortoise predation (e.g., scutes, shells, etc.). If evidence of desert tortoise predation is noted, a report shall be submitted to the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and the Kern County Planning and Natural Resources Department within five calendar days; and

3. Provisions for the management of trash that could attract common ravens during the construction, operations and maintenance, and decommissioning phases of the proposed project.

### **Table 1-7, Biological Resources, Mitigation Measure MM 4.4-8, Pages 1-52 through 1-54**

**MM 4.4-8:** 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 fewer than 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.

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, 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.

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

American Badger/desert Kit Fox:

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

Burrowing Owl and American Badger

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.

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 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.

The plan shall include, at a minimum:

- Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping;
- Type of scope to be used and appropriate timing of scoping to avoid impacts;
- 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).
- 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);
- Removal of other potential owl burrow surrogates or refugia onsite;
- Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;

Mitigation for burrowing owl would include those lands being utilized for Swainson's hawk foraging habitat (MM 4.4-10). The mitigation lands will be identified by the Applicant in consultation with The Audubon Society and CDFW. Mitigation for burrowing owl may be nested with other compensatory lands provided they meet the necessary biological requirements described in CDFW 2012. Project mitigation lands will be covered by a conservation easement and managed by a CDFW-approved land management entity. The Swainson's hawk mitigation lands requirement will be satisfied through a combination of Applicant-acquired lands and/or purchase of mitigation bank credits, which is described in response to comment 3-I.

### **Table 1-7, Biological Resources, Mitigation Measure MM 4.4-10, Page 1-55**

~~MM 4.4-10: The project proponent shall mitigate for the loss of Swainson's Hawk nesting and foraging habitat at a ratio of 0.5:1 based on the total approved area of the project. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements and as determined by appropriate wildlife agency.~~

The project proponent/operator shall mitigate the loss of Swainson's Hawk foraging habitat by providing Habitat Management (HM) lands within the Antelope Valley Swainson's hawk breeding range at a minimum 1:1 ratio, based on the total approved area of the project, for foraging and nesting habitat permanently impacted. Project developers may consider delegating responsibilities for acquisition and management of the HM lands to the CDFW or a third party, such as a nongovernmental organization dedicated to Antelope Valley habitat conservation. The project proponent/operator shall seek approval of such delegation from the CDFW and the appropriate lead agency. Approaches for acquisition and management of HM lands include the following:

- a. HM Land Selection Criteria. Identify the region within which lands would be acquired, and the type/quality of habitat to be acquired. Foraging habitat should be suitable with a capacity to

- improve in quality and value to Swainson’s hawks and must be within the Antelope Valley Swainson’s hawk breeding range. Foraging habitat with suitable nest trees is preferred.
- b. Review and Approval of HM Lands. Provide an acquisition proposal to the Department and the appropriate lead agency for their approval. The proposal should discuss the suitability of the property by comparing it to the selection criteria.
  - c. Land Acquisition Schedule and Financial Assurances. Complete acquisition of proposed HM lands before initiating ground-disturbing project activities. If an irrevocable letter of credit or other form of security is provided, complete land acquisition within 12 months prior to beginning ground-disturbing project activities. Provide financial assurances for dedicating adequate funding for impact avoidance, minimization and compensation measures required for project approval.
  - d. HM Lands Acquisition. Be prepared to provide a preliminary title report, initial hazardous materials survey report, biological analysis, at a minimum to the Department and the appropriate lead agency. The information will likely also be reviewed by the California Department of General Services, Fish and Game Commission and/or Wildlife Conservation Board. Fee title or conservation easement will likely be transferred to a Department of Fish and Game-approved non-profit third party and the Department, or solely to the Department. Be prepared to support enhancement and endowment funds for protection and enhancement of acquired lands. The Department will approve establishment and management of the funds, ensuring that qualified non-profit organizations or the Department will manage the funds in an appropriate manner. Contributed funds and any related interest generated from the initial capital endowment would support long-term operation, management, and protection of the approved HM lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of the HM lands. Be prepared to reimburse the Department or other entities for all land acquisition costs.

**Table 1-7, Biological Resources, Mitigation Measure MM 4.4-11, Pages 1-55 and 1-56**

**MM 4.4-11:** If construction is scheduled to commence during the non-nesting season (i.e., September 16 to January 31), no preconstruction surveys or additional measures are required. To avoid impacts to nesting birds in the project area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within the project site for construction activities that are initiated during the breeding season (i.e., February 1 to September 15). The raptor survey shall focus on potential nest sites (e.g., cliffs, large trees, windrows) within a 0.5-mile buffer around the project site. Surveys shall be conducted no more than ~~14~~ 7 days prior to ~~construction activities~~ ground disturbance. Surveys need not be conducted for the entire project site at one time; they may be phased so that surveys occur shortly before a portion of the project site is disturbed. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance. If active nests are found, a suitable buffer (e.g., ~~200–300~~ 400 feet for common raptors; 0.5 mile for Swainson’s hawk; ~~30–50~~ 150 feet for passerine species) shall be established around active nests and no construction within the buffer allowed until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). Once work commences, all nests shall be monitored to detect any behavioral changes as a result of the project. For non-listed species, encroachment into the

avoidance buffer may occur at the discretion of a qualified biologist based on the proposed project activity; however, for State-listed species, consultation with CDFW shall occur prior to encroachment into the aforementioned buffers.”

### **Table 1-7, Biological Resources, Mitigation Measure MM 4.4-12, Pages 1-56 and 1-57**

**MM 4.4-12:** ~~Within 14 days prior~~ Prior to the commencement of any ground-disturbing activities, the project operator shall conduct preconstruction surveys for special-status and protected plant species within the project area, including but not limited to, alkali mariposa lily and recurved larkspur. These surveys shall occur when these species are detectable as confirmed by visits to reference populations, as outlined in the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). After the preconstruction survey determines the exact location of these species, if present, on the project site and the number of individuals or populations present, the project proponent/operator shall submit written documentation to the Kern County Planning and Natural Resources Department confirming implementation of the measures described below. If reference populations show that these species would not be detectable during preconstruction surveys all known locations of individuals from previous surveys and from CNDDDB records, as well as moderate to high quality habitat for the alkali mariposa lily and recurved larkspur shall be avoided by a buffer of up to 50 feet, including a buffer around any seeps or springs associated with special status populations and suitable habitat, as these mesic species rely on these hydrologic features to persist.

a. The project proponent/operator shall work with a qualified biologist to determine presence of alkali mariposa lily and recurved larkspur and identify all known locations of alkali mariposa lily from previous surveys and CNDDDB records to establish “avoidance areas”. All special-status plants found within the project site shall be avoided by a buffer of ~~25~~ up to 50 feet, including a buffer around any seeps or springs associated with special status populations. Sturdy, highly visible, orange plastic construction fencing (or equivalent material verified by the authorized biologist) shall be installed around all locations of previously documented or detected special-status plants to protect from impacts during the construction phase, until they can be relocated. The fence shall be securely staked and installed in a durable manner that would be reasonably expected to withstand wind and weather events and last at least through the construction period. Fencing shall be removed upon completion of the project construction.

b. All alkali mariposa lilies and recurved larkspur that cannot feasibly be avoided in final project design shall have bulbs collected prior to construction. Additionally, a transplantation plan for alkali mariposa lily will be submitted and approved by the County prior to ground disturbance and bulb collection. The plan will include the following:

1. Identify an area of occupied habitat to be preserved and removed;
2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations;
3. Methods for preservation, restoration, enhancement, and/or translocation
4. Indicate a replacement ratio and success standard of 3:1 for impacted to individuals
5. Establish a monitoring program to ensure mitigation success
6. Create an adaptive management and remedial measures in the event that performance standards are not achieved

7. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

c. Temporary ground disturbance associated with the gen-tie lines or collector 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 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.

### **Table 1-7, Biological Resources, Mitigation Measures MM 4.4-14, Pages 1-57 and 1-58**

**MM 4.4-14:** 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 or Western Joshua Tree Conservation Act (WJTCA) 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. The plan will include the following as applicable to the action proposed to be taken by the Applicant:

- a. Identification of an area of occupied habitat to be preserved and removed;
- b. Identification of areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;
- c. Methods for preservation, restoration, enhancement, and/or translocation;
- d. A replacement ratio and success standard as required by CESA or the WJTCA;
- e. Establishment of a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.
- f. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.
- g. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly



maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;

h. Create adaptive management and remedial measures in the event that performance standards are not achieved; Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

### **Table 1-7, Biological Resources, Mitigation Measures MM 4.4-17, MM 4.4-18, and MM 4.4-19, Pages 1-59 and 1-60**

**MM 4.4-17:** Prior to the issuance of a grading permit, if avoidance of mulefat thicket is not feasible, direct permanent impacts on up to 1.84 acres of mulefat thicket shall be mitigated at a 2:1 ratio (up to 3.68 acres, depending on final impacts) through one or more of the following as determined through consultation with the Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;

2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;

3. Methods for preservation, restoration, enhancement, and/or translocation;

4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;

5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.

6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.

7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;

8. Create adaptive management and remedial measures in the event that performance standards are not achieved;

9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

**MM 4.4-18:** Within 12 months of building permit issuance, direct permanent impacts on up to 0.55 acre of snakeweed scrub (if Gen-tie Option 2 is implemented) or 3.51 acres of snakeweed scrub (if Gen-tie Option 3 is implemented) shall be mitigated at a 2:1 ratio (up to 1.10 acres or 7.03 acres, respectively, depending

on final impacts) through one or more of the following as determined through consultation with Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;
2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;
3. Methods for preservation, restoration, enhancement, and/or translocation;
4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;
5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.
6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.
7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;
8. Create adaptive management and remedial measures in the event that performance standards are not achieved;
9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

**MM 4.4-19:** Within 12 months of building permit issuance, direct permanent impacts on up to 1.26 acres of scale broom scrub shall be mitigated at a 2:1 ratio (up to 2.52 acres, depending on final impacts) through one or more of the following as determined through consultation with Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;
2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;
3. Methods for preservation, restoration, enhancement, and/or translocation;

4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;
5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.
6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.
7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;
8. Create adaptive management and remedial measures in the event that performance standards are not achieved;
9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

#### **Table 1-7, Biological Resources, Mitigation Measure MM 4.4-20, Pages 1-60 and 1-61**

**MM 4.4-20:** 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] and shall not be electrified 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 in consultation with CDFW and USFWS and shall include 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 following installation to check the fence alignment for desert tortoises that are exhibiting fence-pacing behavior and shall be inspected 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.

#### **Table 1-7, Biological Resources, Mitigation Measure MM 4.4-21**

**MM 4.4-21:** Within 7 days of the start of ground-disturbing activities, a qualified biologist shall conduct pre-construction surveys for Northern California legless lizard (NCLL) within their requisite habitat features within areas of suitable habitat. If NCLL are detected during surveys and avoidance is possible, a

50-foot no-disturbance buffer will be implemented. If avoidance is not feasible, a qualified biologist with an appropriate permit may relocate the NCLL out of the project site into a nearby area within suitable habitat.

### **Table 1-7, Biological Resources, Mitigation Measure MM 4.4-22**

MM 4.4-22: Within 3 days of the start of ground-disturbing activities, a qualified biologist shall conduct pre-construction surveys for NCLL within their requisite habitat features within areas of suitable habitat. If NCLL are detected during surveys and avoidance is possible, a 50-foot no-disturbance buffer will be implemented. If avoidance is not feasible, a qualified biologist with appropriate permit may relocate the NCLL out of the project site into a nearby area within suitable habitat.

### **Table 1-7, Cultural, Mitigation Measure MM 4.5-1, Pages 1-61 and 1-62**

**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 historical resources during ground-disturbing activities. 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 on-site. Further, the Lead Archaeologist shall be responsible for ensuring the following employee training provisions are implemented during implementation of the project:

- a. Prior to commencement of any ground disturbing activities, the Lead Archaeologist, in consultation with the 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, including the Cultural Resources Sensitivity Training Guide, shall be provided to the Planning and Natural Resources Department prior to the issuance of any grading or building permit.
- b. 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.
- c. 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 for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources.
- d. A copy of the Cultural Resources Sensitivity Training Guide/Materials shall be kept on-site 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 commencing work on-site.
- e. During implementation of the project, the services of Native American tribal 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 initial project-related construction activities as identified in Mitigation Measures MM 4.5-2 through MM 4.5-5.

f. During implementation of the project, the services of archaeological monitors, working under the supervision of the Lead Archaeologist, shall be retained by the project to monitor initial project-related construction activities as identified in Mitigation Measures MM 4.5-2 through MM 4.5-5.

### **Table 1-7, Cultural, Mitigation Measure MM 4.5-2, Pages 1-62 and 1-63**

**MM 4.5-2:** Prior to the issuance of any grading or building permit, the project operator shall submit to the Kern County Planning and Natural Resources Department a Cultural Resources Treatment Plan. The plan shall:

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 that can be avoided 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.

b. Require that the construction zone shall be narrowed or otherwise altered to avoid the exclusion areas.

c. Previously evaluated archaeological sites and isolates that have been determined not eligible under CEQA for the California Register of Historical Resources will not be included in the exclusion areas.

d. The requirements for archaeological monitoring would be noted in the Cultural Resources Treatment Plan. In consultation with the Native American monitor, the archaeologist's duties would include monitoring, evaluation of any finds, analysis of collected materials, and preparation of a monitoring results report conforming to CEQA guidelines.

fe. Provide an overview of best management practices to be utilized during ground disturbing construction activities to ensure protection of cultural resources.

g. d. Outline the process for evaluation of any unanticipated cultural discoveries during project construction activities.

he. If avoidance of the archaeological sites (BH-S-110, BH-S-202, P-15-002359, and BHS-144) is not possible, a Preservation Plan, prepared by the Lead Archaeologist, shall be provided. Previously evaluated significant sites are present and data recovery shall be conducted under the Data Recovery Plan for those sites that cannot be avoided or preserved in place. ~~these sites.~~ Preservation-in-place options could include capping the sites with sterile, chemically neutral soil, geofabric, and some form of shallow-rooted landscaping. A sample of the archaeological deposit shall be recovered before capping.

f. 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 significant cultural discoveries that cannot be avoided or preserved in place.

**Table 1-7, Geology, Impact 4.7-4, Page 1-67****Impact**

Impact 4.7-4: The project would physically divide an established community?

Impact 4.7-4: The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?

Level of Significance Before Mitigation ~~No Impact~~ Less Than Significant

Level of Significance After Mitigation ~~No Impact~~ Less Than Significant

**Table 1-7, Impact 4.9-1, Pages 1-72 and 1-73**

**MM 4.9-1:** During the life of the project, including decommissioning, and prior to the issuance of grading or building permits, the project proponent 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:

- 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. Describe federal, State, or local agency coordination, as applicable, and clean-up efforts that would occur in the event of an accidental release.
- g. Prohibit the use of pesticides and herbicides in waterways, and include procedures to avoid or minimize dust from existing residual pesticides and herbicides use that may be present on the site.

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 project's permanent record.

**Table 1-7, Impact 4.10-2, Page 1-77**

Level of Significance Before Mitigation ~~Potentially Significant~~ Less Than Significant

**Table 1-7, Impact 4.11-1, Page 1-79**

Level of Significance Before Mitigation

~~No Impact~~ Less than Significant

**Level of Significance After Mitigation**

~~No Impact~~ Less than Significant

**Table 1-7, Noise, Impact 4.12-3, Page 1-83**

**~~Impact 4.12-3: The project would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?~~**

**Table 1-7, Noise, Mitigation Measure MM 4.12-5, Page 1-82**

**~~MM 4.12-45:~~** The emergency backup generator design shall incorporate noise control to ensure compliance with the applicable noise standards of Kern County and the WSSP during ~~period~~ periodic testing and emergency operation. Such measures may include, but are not limited to:

~~• The adequacy of the selected noise control technique(s) will be demonstrated in a focused acoustical study performed prior to the issuance of building permits to ensure that the applicable Kern County and WSSP noise standards (daily Ldn, daytime L50, and nighttime L50) would not be exceeded at any of the nearby noise sensitive receptors. The calculations will be based on the most recent available project plans and backup generator specifications.~~

- Locating the emergency backup generator away from noise-sensitive receptors;
- Selecting a quieter generator model;
- Equipping the generator with an appropriate muffler to reduce exhaust noise
- Equipping the generator with an appropriate sound enclosure to reduce radiated noise
- Placing noise barrier(s) around one or more sides of the emergency generator

The adequacy of the selected noise control technique(s) will be demonstrated in a focused acoustical study performed prior to the issuance of building permits to ensure that the applicable Kern County and WSSP noise standards (daily Ldn, daytime L50, and nighttime L50) would not be exceeded at any of the nearby

noise-sensitive receptors. The calculations will be based on the most recent available project plans and backup generator specifications.

### **Table 1-7, Noise, Mitigation Measure MM 4.12-7, Page 1-83**

**MM 4.12-67:** For BESS/Substation Option 3, if selected for construction, the BESS design will be revised and/or noise control will be added as part of the final project design. Such revisions and noise control may include, but are not limited to, the following:

- Shifting the BESS to the west or northwest to increase its distance from sensitive receptor (SR)23, SR24, and SR25
- Selecting quieter BESS equipment
- Placing noise barrier(s) around one or more sides of the BESS equipment

The adequacy of the selected noise control technique(s) will be demonstrated in a focused acoustical study performed prior to the issuance of building permits to ensure that the applicable Kern County and WSSP noise standards would not be exceeded at any of the nearby noise-sensitive receptors. The calculations will be based on the most recent available plans for the substation and BESS.

All mitigation measures for **MM 4.12-7** shall be changed to **MM 4.12-6** in this section and throughout the Draft EIR wherever referenced.

### **Table 1-7, Impact 4.17-4, Page 1-94**

#### **Mitigation Measures**

~~Mitigation is not required. However, Mitigation Measure 4.10-1 as provided in Section 4.10, Hydrology and Water Quality, of this EIR would be implemented.~~

Mitigation Measure 4.10-1 as provided in Section 4.10, Hydrology and Water Quality, of this EIR would be required implemented.

### **Table 1-7, Impact 4.17, Cumulative, Page 1-94**

#### **Mitigation Measures**

~~Mitigation is not required. However, Mitigation Measure 4.13-1 as provided in Section 4.13-1 would be implemented (See Section 4.14, Public Services, for full mitigation measure text).~~

Mitigation Measure 4.13-1, as provided in Section 4.13-1 would be implemented (See Section 4.14, Public Services, for full mitigation measure text).

## **Section 4.4, Biological Resources**

### **Section 4.4 Biological Resources, 4.4-1, Page 4.4-1**

The BRTR includes surveys for the special-status species including the desert tortoise, Mohave ground squirrel, burrowing owl, and Swainson's hawk. In addition, the following were performed: vegetation



mapping; western Joshua tree, protected cacti, and yucca species inventory; ~~special-status plant species habitat assessment~~ special-status plant focused surveys and species habitat assessment; raptor and raven nest surveys; desert kit fox and American badger burrow mapping; and incidental special-status wildlife documentation. A habitat assessment was also conducted for the Crotch bumble bee. The property area, full methodologies, site conditions, and results of all field surveys are detailed in Appendices B.1 and B.2 of this EIR.

#### **Section 4.4 Biological Resources, Page 4.4-31**

The following subsections describe the methodology for the general biological resource surveys, habitat assessments, and focused and protocol surveys. Based on the results from the literature review, protocol surveys were deemed necessary to determine the presence or absence of the following special-status species within the BSA: desert tortoise, Mohave ground squirrel (*Xerospermophilus mohavensis*), Swainson's hawk, and burrowing owl. In addition, the following were performed: vegetation mapping; western Joshua tree, protected cacti, and yucca species inventory; ~~special-status plant species habitat assessment~~ special-status plant focused surveys and species habitat assessment; raptor and raven nest surveys; desert kit fox and American badger burrow mapping, and incidental (not any of the above-listed species) special-status wildlife documentation.

#### **Section 4.4, Biological Resources, Page 4.4-36**

##### **Crotch Bumble Bee Habitat Assessment Methods**

For the site habitat assessment, biologists proposed a survey protocol which was reviewed by CDFW and is generally consistent with the guidance CDFW subsequently released. Consistent with the approach proposed to CDFW (Appendix B.1), biologists used geographic information systems (GIS) to locate fourteen 3-acre plots for each of two survey sessions (i.e., 14 plots per session, for a total of 28 plots). For each plot, biologists located a central point, and then mapped a 3-acre circle around that point. When surveyors were on site, they shifted some plots to capture the highest-quality representative habitat (e.g., greater cover by flowering plants, fewer disturbances) in each habitat type based on the site conditions during the survey.

#### **Section 4.4, Biological Resources, Impact 4.4-6, Page 4.4-109**

##### **Impact 4.4-6:**

The proposed project would not conflict with any other adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan. Impacts would be less than significant. No impact would occur.

#### **Section 4.4, Biological Resources, Mitigation Measure 4.4-3, Pages 4.4-93 and 4.4-94**

~~MM 4.4-3: Prior to any ground disturbing activities in the active season for Crotch's bumble bee (February 1 through October 31), a qualified biologist (a biologist holding an MOU for Crotch's bumble bee) should conduct a preconstruction survey within habitats identified as having a moderate potential for Crotch's bumble bee to occur. The biologist should perform meandering transects on three separate days over a 14-day period prior to construction within the planned activity footprint. To the extent possible, surveys should be conducted between 9am and 1pm, when temperatures are between 65-90F, and when wind speeds are less than 8 miles per hour to encompass the period when bees are most active. The biologist should collect photographic vouchers of bumble bees (i.e., genus *Bombus*) to the extent possible through photographing the bee on floral resources, or by netting and chilling the specimens conducted by a biologist holding an~~

~~MOU for the Crotch's bumble bee) and obtaining diagnostic photographs of the captured bees. During the blooming period immediately prior to construction, a qualified biologist (a biologist holding an MOU for Crotch's bumble bee) shall conduct focused surveys for CBB and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). Survey data should be captured on the California bumble bee atlas (CBBA) data sheet or a project specific data sheet if it encompasses the same CBBA data sheet information (available at: [https://www.cabumblebeeatlas.org/uploads/1/1/6/9/116937560/cabba\\_data\\_sheet\\_2023.pdf](https://www.cabumblebeeatlas.org/uploads/1/1/6/9/116937560/cabba_data_sheet_2023.pdf)). Survey results should be provided to the CDFW and Kern County Planning and Natural Resources Department.~~

If a suspected or confirmed Crotch's bumble bee is detected in the project area, every effort shall be made to find the nest. If a nest is found in the project area, the biologist shall delineate a 50-foot 'no-activity' buffer around the nest until the nest senesces (becomes inactive and is no longer in use). If the species is identified within the project site and the buffer cannot be implemented effectively to avoid take, the applicant will consult with CDFW. If no suspected or confirmed Crotch's bumble bee is detected in the planned activity footprint, construction could proceed without further measures.

#### **Section 4.4, Biological Resources, Mitigation Measure MM 4.4-6, Pages 4.4-96 and 4.4-97**

**MM 4.4-6:** During construction and decommissioning, the Lead Biologist or approved biological monitor shall monitor all initial ground-disturbance activities and remain on-call throughout construction/decommissioning in the event a special-status species wanders into the project site.

Preconstruction surveys for special-status species shall be conducted within the project boundaries by the Lead Biologist or approved biological monitor within 14 days of the start of any vegetation clearing or grading activities. Methodology for preconstruction surveys shall be appropriate for each potentially occurring species-status species and shall follow U.S. Fish and Wildlife and/or California Department of Fish and Wildlife preconstruction survey 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 being disturbed. The Lead Biologist may use a variety of approaches (including but not limited to monitoring, track plates, and direct observation) and evidence (including burrow characteristics and presence of sign such as scat and tracks) to determine burrow activity. If any evidence of occupation of the project site special-status species is observed, a buffer shall be established by a qualified biologist that results in sufficient avoidance, as described below.

a. If desert tortoise are found on-site during subsequent surveys or biological monitoring activities, construction activities shall cease to avoid the potential for take and consultation with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife shall be initiated to obtain the necessary incidental take permit authorizations or provide evidence such a permit is not required

b. Preconstruction surveys shall be conducted by a qualified biologist for the presence of American badger or desert kit fox dens within 14 days prior to commencement of construction activities. The surveys shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes desert scrub habitats. 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 prior to that portion of the project site disturbed. If potential dens are observed and avoidance is feasible, the following buffer distances shall be established prior to construction activities:

- Desert kit fox or American badger potential den: 50 feet.
- Desert kit fox or American badger active den: 100 feet.
- Desert kit fox or American badger natal den: 500 feet.

If active or potentially active dens are identified within the project site and the buffer cannot be implemented to avoid take, the Applicant will coordinate with CDFW for guidance on appropriate take avoidance measures.

~~If avoidance of the potential dens is not possible, the following measures are required to avoid potential adverse effects to the American badger and desert kit fox:~~

~~1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent American badgers or desert kit foxes from re-using them during construction.~~

~~2. If the qualified biologist determines that potential dens may be active, an on-site passive relocation program shall be implemented. This program shall consist of excluding American badgers or desert kit foxes from occupied burrows by installation of one-way doors at burrow entrances, monitoring of the burrow for seven (7) days to confirm usage has been discontinued, and excavation and collapse of the burrow to prevent reoccupation. After the qualified biologist determines that American badgers or desert kit foxes have stopped using the dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.~~

During fencing and grading activities daily monitoring reports shall be prepared by the monitoring biologists. The Lead Biologist shall prepare a summary monitoring report documenting the effectiveness and practicality of the protection measures that are in place and making recommendations for modifying the measures to enhance species protection, as needed. The report shall also provide information on the overall activities conducted related to biological resources, including the Environmental Awareness Training and Education Program, clearance/pre-activity surveys, monitoring activities, and any observed special-status species, including injuries and fatalities. These monitoring reports shall be submitted to the Kern County Planning and Natural Resources Department and relevant resource agencies, as applicable, on a monthly basis along with copies of all survey reports.

#### **Section 4.4, Biological Resources, Mitigation Measure MM 4.4-7, Pages 4.4-7 through 4.4-99**

**MM 4.4-7:** Within 14 days prior to the commencement of any ground-disturbing activities the project operator shall conduct preconstruction surveys for desert tortoises within the project area. The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service protocol (2010~~2019~~). If no burrows or tortoises are discovered during preconstruction surveys, no further mitigation is necessary. The desert tortoise is a federally and state threatened species and consequently, impacts that would cause “take” of the species would require the issuance of Incidental Take Permits from both the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to comply with the Federal Endangered Species Act and California Endangered Species Act. If burrows or tortoises are identified on the project site during preconstruction surveys, the project operator shall be required to consult with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife regarding take coverage, and adhere to the following minimum conditions:

- c. Develop a plan for desert tortoise translocation and monitoring prior to project construction. The plan shall provide the framework for implementing the following measures:
1. If, upon consultation with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, it is determined by both resource agencies that a permanent tortoise proof exclusion fence is required, a fence shall be installed around all construction and operation areas prior to the initiation of earth disturbing activities, in coordination with a qualified biologist. The fence shall be designed in such a manner to allow other wildlife to access through the permanent security fence and be constructed of 0.5-inch mesh hardware cloth and extend 18 inches above ground and 12 inches below ground. Where burial of the fence is not possible, the lower 12 inches shall be folded outward against the ground and fastened to the ground so as to prevent desert tortoise entry. The fence shall be supported sufficiently to maintain its integrity, be checked at least monthly during construction and operations, and maintained when necessary by the project operator to ensure its integrity. Provisions shall be made for closing off the fence at the point of vehicle entry. Common raven perching deterrents shall be installed as part of the fence construction.
  2. An Authorized Biologist shall conduct a preconstruction survey for desert tortoise within the construction site, as well as before and after installation of desert tortoise exclusionary fencing (if required to be installed) and project security fencing. An Authorized Biologist has the appropriate education and experience to accomplish biological monitoring and mitigation tasks and is approved by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. Two surveys without finding any desert tortoises or new desert tortoise sign shall occur prior to declaring the site clear of desert tortoises.
  3. All burrows that could provide shelter for a desert tortoise shall be hand-excavated prior to ground-disturbing activities.
  4. An Authorized Biologist shall remain on site until all vegetation necessary for the construction of the project is cleared and, at a minimum, conduct site and fence inspections on a monthly basis throughout construction in order to ensure project compliance with mitigation measures.
  5. An Authorized Biologist shall remain on-call throughout fencing and grading activities in the event a desert tortoise wanders onto the project site.
  6. Mitigation for permanent loss of occupied desert tortoise habitat shall be mitigated at a 1:1 ratio to reduce potential effects to less-than-significant levels. Mitigation can be achieved through purchase of credit from an existing mitigation bank, such as the Desert Tortoise Natural Area, private purchase of mitigation lands, or on-site preservation, as approved by the resource agencies.
- d. A Raven Management Plan shall be developed for the project site. This plan shall include at a minimum:
1. Identification of all common raven nests within the project area during construction.
  2. Weekly inspections during construction under all nests in the project area for evidence of desert tortoise predation (e.g., scutes, shells, etc.). If evidence of desert tortoise predation is noted, a report shall be submitted to the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and the Kern County Planning and Natural Resources Department within five calendar days; and

3. Provisions for the management of trash that could attract common ravens during the construction, operations and maintenance, and decommissioning phases of the proposed project.

#### **Section 4.4, Biological Resources, Mitigation Measure MM 4.4-8, Pages 4.4-99 and 4.4-100**

**MM 4.4-8:** 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 fewer than 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.

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, 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.

##### 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

##### American Badger/desert Kit Fox:

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

##### Burrowing Owl and American Badger

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.

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 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.

The plan shall include, at a minimum:

- Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping;
- Type of scope to be used and appropriate timing of scoping to avoid impacts;
- 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).
- 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);
- Removal of other potential owl burrow surrogates or refugia onsite;
- Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;

Mitigation for burrowing owl would include those lands being utilized for Swainson's hawk foraging habitat (MM 4.4-10). The mitigation lands will be identified by the Applicant in consultation with The Audubon Society and CDFW. Mitigation for burrowing owl may be nested with other compensatory lands provided they meet the necessary biological requirements described in CDFW 2012. Project mitigation lands will be covered by a conservation easement and managed by a CDFW-approved land management entity. The Swainson's hawk mitigation lands requirement will be satisfied through a combination of Applicant-acquired lands and/or purchase of mitigation bank credits, which is described in response to comment 3-I.

#### **Section 4.4, Biological Resources, Mitigation Measure MM 4.4-10, Page 4.4-101**

~~MM 4.4-10: The project proponent shall mitigate for the loss of Swainson's Hawk nesting and foraging habitat at a ratio of 0.5:1 based on the total approved area of the project. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements and as determined by appropriate wildlife agency.~~

The project proponent/operator shall mitigate the loss of Swainson's Hawk foraging habitat by providing Habitat Management (HM) lands within the Antelope Valley Swainson's hawk breeding range at a minimum 1:1 ratio, based on the total approved area of the project, for foraging and nesting habitat permanently impacted. Project developers may consider delegating responsibilities for acquisition and management of the HM lands to the CDFW or a third party, such as a nongovernmental organization dedicated to Antelope Valley habitat conservation. The project proponent/operator shall seek approval of such delegation from the CDFW and the appropriate lead agency. Approaches for acquisition and management of HM lands include the following:

- e. HM Land Selection Criteria. Identify the region within which lands would be acquired, and the type/quality of habitat to be acquired. Foraging habitat should be suitable with a capacity to improve in quality and value to Swainson's hawks and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.
- f. Review and Approval of HM Lands. Provide an acquisition proposal to the Department and the appropriate lead agency for their approval. The proposal should discuss the suitability of the property by comparing it to the selection criteria.
- g. Land Acquisition Schedule and Financial Assurances. Complete acquisition of proposed HM lands before initiating ground-disturbing project activities. If an irrevocable letter of credit or other form of security is provided, complete land acquisition within 12 months prior to beginning ground-disturbing project activities. Provide financial assurances for dedicating adequate funding for impact avoidance, minimization and compensation measures required for project approval.
- h. HM Lands Acquisition. Be prepared to provide a preliminary title report, initial hazardous materials survey report, biological analysis, at a minimum to the Department and the appropriate lead agency. The information will likely also be reviewed by the California Department of General Services, Fish and Game Commission and/or Wildlife Conservation Board. Fee title or conservation easement will likely be transferred to a Department of Fish and Game-approved non-profit third party and the Department, or solely to the Department. Be prepared to support enhancement and endowment funds for protection and enhancement of acquired lands. The Department will approve establishment and management of the funds, ensuring that qualified non-profit organizations or the Department will manage the funds in an appropriate manner. Contributed funds and any related interest generated from the initial capital endowment would support long-term operation, management, and protection of the approved HM lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of the HM lands. Be prepared to reimburse the Department or other entities for all land acquisition costs.

#### **Section 4.4, Biological Resources, Mitigation Measure 4.4-11, Pages 4.4-101 and 4.4-102**

**MM 4.4-11:** If construction is scheduled to commence during the non-nesting season (i.e., September 16 to January 31), no preconstruction surveys or additional measures are required. To avoid impacts to nesting birds in the project area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within the project site for construction activities that are initiated during the breeding season

(i.e., February 1 to September 15). The raptor survey shall focus on potential nest sites (e.g., cliffs, large trees, windrows) within a 0.5-mile buffer around the project site. Surveys shall be conducted no more than ~~14~~ 7 days prior to ~~construction activities~~ ground disturbance. Surveys need not be conducted for the entire project site at one time; they may be phased so that surveys occur shortly before a portion of the project site is disturbed. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance. If active nests are found, a suitable buffer (e.g., ~~200–300~~ 400 feet for common raptors; 0.5 mile for Swainson’s hawk; ~~30–50~~ 150 feet for passerine species) shall be established around active nests and no construction within the buffer allowed until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). Once work commences, all nests shall be monitored to detect any behavioral changes as a result of the project. For non-listed species, encroachment into the avoidance buffer may occur at the discretion of a qualified biologist based on the proposed project activity; however, for State-listed species, consultation with CDFW shall occur prior to encroachment into the aforementioned buffers.”

#### **Section 4.4, Biological Resources, Mitigation Measure 4.4-12, Pages 4.4-102 and 4.4-103**

**MM 4.4-12:** ~~Within 14 days prior~~ Prior to the commencement of any ground-disturbing activities, the project operator shall conduct preconstruction surveys for special-status and protected plant species within the project area, including but not limited to, alkali mariposa lily and recurved larkspur. These surveys shall occur when these species are detectable as confirmed by visits to reference populations, as outlined in the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). After the preconstruction survey determines the exact location of these species, if present, on the project site and the number of individuals or populations present, the project proponent/operator shall submit written documentation to the Kern County Planning and Natural Resources Department confirming implementation of the measures described below. If reference populations show that these species would not be detectable during preconstruction surveys all known locations of individuals from previous surveys and from CNDDDB records, as well as moderate to high quality habitat for the alkali mariposa lily and recurved larkspur shall be avoided by a buffer of up to 50 feet, including a buffer around any seeps or springs associated with special status populations and suitable habitat, as these mesic species rely on these hydrologic features to persist.

a. The project proponent/operator shall work with a qualified biologist to determine presence of alkali mariposa lily and recurved larkspur and identify all known locations of alkali mariposa lily from previous surveys and CNDDDB records to establish “avoidance areas”. All special-status plants found within the project site shall be avoided by a buffer of ~~25~~ up to 50 feet, including a buffer around any seeps or springs associated with special status populations. Sturdy, highly visible, orange plastic construction fencing (or equivalent material verified by the authorized biologist) shall be installed around all locations of previously documented or detected special-status plants to protect from impacts during the construction phase, until they can be relocated. The fence shall be securely staked and installed in a durable manner that would be reasonably expected to withstand wind and weather events and last at least through the construction period. Fencing shall be removed upon completion of the project construction.

b. All alkali mariposa lilies and recurved larkspur that cannot feasibly be avoided in final project design shall have bulbs collected prior to construction. Additionally, a transplantation plan for alkali mariposa lily



will be submitted and approved by the County prior to ground disturbance and bulb collection. The plan will include the following:

8. Identify an area of occupied habitat to be preserved and removed;
9. Identify areas of onsite or offsite preservation, restoration, or enhancement locations;
10. Methods for preservation, restoration, enhancement, and/or translocation
11. Indicate a replacement ratio and success standard of 3:1 for impacted to individuals
12. Establish a monitoring program to ensure mitigation success
13. Create an adaptive management and remedial measures in the event that performance standards are not achieved
14. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

c. Temporary ground disturbance associated with the gen-tie lines or collector 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 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.

#### **Section 4.4, Biological Resources, Mitigation Measure 4.4-14, Page 4.4-103**

**MM 4.4-14:** 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 or Western Joshua Tree Conservation Act (WJTCA) 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. The plan will include the following as applicable to the action proposed to be taken by the Applicant:

- a. Identification of an area of occupied habitat to be preserved and removed;
- b. Identification of areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;

- c. Methods for preservation, restoration, enhancement, and/or translocation;
- d. A replacement ratio and success standard as required by CESA or the WJTCA;
- e. Establishment of a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.
- f. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.
- g. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;
- h. Create adaptive management and remedial measures in the event that performance standards are not achieved; Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

#### **Section 4.4, Biological Resources, Mitigation Measures MM 4.4-17, MM 4.4-18, and MM 4.4-19, Pages 4.4-106 and 4.4-107**

**MM 4.4-17:** Prior to the issuance of a grading permit, if avoidance of mulefat thicket is not feasible, direct permanent impacts on up to 1.84 acres of mulefat thicket shall be mitigated at a 2:1 ratio (up to 3.68 acres, depending on final impacts) through one or more of the following as determined through consultation with the Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;
2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;
3. Methods for preservation, restoration, enhancement, and/or translocation;
4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;
5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.
6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.

7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;

8. Create adaptive management and remedial measures in the event that performance standards are not achieved;

9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

**MM 4.4-18:** Within 12 months of building permit issuance, direct permanent impacts on up to 0.55 acre of snakeweed scrub (if Gen-tie Option 2 is implemented) or 3.51 acres of snakeweed scrub (if Gen-tie Option 3 is implemented) shall be mitigated at a 2:1 ratio (up to 1.10 acres or 7.03 acres, respectively, depending on final impacts) through one or more of the following as determined through consultation with Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;

2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;

3. Methods for preservation, restoration, enhancement, and/or translocation;

4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;

5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.

6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.

7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;

8. Create adaptive management and remedial measures in the event that performance standards are not achieved;

9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

**MM 4.4-19:** Within 12 months of building permit issuance, direct permanent impacts on up to 1.26 acres of scale broom scrub shall be mitigated at a 2:1 ratio (up to 2.52 acres, depending on final impacts) through one or more of the following as determined through consultation with Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;
2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;
3. Methods for preservation, restoration, enhancement, and/or translocation;
4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;
5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.
6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.
7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;
8. Create adaptive management and remedial measures in the event that performance standards are not achieved;
9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

#### **Section 4.4, Biological Resources, Mitigation Measure MM 4.4-20, Page 4.4-108**

**MM 4.4-20:** 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] and shall not be electrified 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 in consultation with CDFW and USFWS and shall include 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 following installation to check the fence alignment for desert tortoises that are exhibiting fence-pacing behavior and shall be inspected 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.

#### **Section 4.4, Biological Resources, Mitigation Measure MM 4.4-21**

MM 4.4-21: Within 7 days of the start of ground-disturbing activities, a qualified biologist shall conduct pre-construction surveys for Northern California legless lizard (NCLL) within their requisite habitat features within areas of suitable habitat. If NCLL are detected during surveys and avoidance is possible, a 50-foot no-disturbance buffer will be implemented. If avoidance is not feasible, a qualified biologist with an appropriate permit may relocate the NCLL out of the project site into a nearby area within suitable habitat.

#### **Section 4.4, Biological Resources, Mitigation Measure MM 4.4-22**

MM 4.4-22: Within 3 days of the start of ground-disturbing activities, a qualified biologist shall conduct pre-construction surveys for NCLL within their requisite habitat features within areas of suitable habitat. If NCLL are detected during surveys and avoidance is possible, a 50-foot no-disturbance buffer will be implemented. If avoidance is not feasible, a qualified biologist with appropriate permit may relocate the NCLL out of the project site into a nearby area within suitable habitat.

#### **Section 4.5, Cultural Resources**

##### **Section 4.5, Cultural Resources, Mitigation Measure MM 4.5-1, Pages 4.5-40 and 4.5-41**

**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 historical resources during ground-disturbing activities. 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 on-site. Further, the Lead Archaeologist shall be responsible for ensuring the following employee training provisions are implemented during implementation of the project:

a. Prior to commencement of any ground disturbing activities, the Lead Archaeologist, in consultation with the 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, including the Cultural Resources Sensitivity Training Guide, shall be provided to the Planning and Natural Resources Department prior to the issuance of any grading or building permit.

- b. 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.
- c. 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 for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources.
- d. A copy of the Cultural Resources Sensitivity Training Guide/Materials shall be kept on-site 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 commencing work on-site.
- e. During implementation of the project, the services of Native American tribal 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 initial project-related construction activities as identified in Mitigation Measures MM 4.5-2 through MM 4.5-5.
- f. During implementation of the project, the services of archaeological monitors, working under the supervision of the Lead Archaeologist, shall be retained by the project to monitor initial project-related construction activities as identified in Mitigation Measures MM 4.5-2 through MM 4.5-5.

#### **Section 4.5, Cultural Resources, Mitigation Measure MM 4.5-2, Pages 4.5-41 and 4.5-42**

**MM 4.5-2:** Prior to the issuance of any grading or building permit, the project operator shall submit to the Kern County Planning and Natural Resources Department a Cultural Resources Treatment Plan. The plan shall:

- 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 that can be avoided 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.
- b. Require that the construction zone shall be narrowed or otherwise altered to avoid the exclusion areas.
- c. Previously evaluated archaeological sites and isolates that have been determined not eligible under CEQA for the California Register of Historical Resources will not be included in the exclusion areas.
- d. The requirements for archaeological monitoring would be noted in the Cultural Resources Treatment Plan. In consultation with the Native American monitor, the archaeologist's duties would include monitoring, evaluation of any finds, analysis of collected materials, and preparation of a monitoring results report conforming to CEQA guidelines.
- fe. Provide an overview of best management practices to be utilized during ground disturbing construction activities to ensure protection of cultural resources.
- gd. Outline the process for evaluation of any unanticipated cultural discoveries during project construction activities.
- he. If avoidance of the archaeological sites (BH-S-110, BH-S-202, P-15-002359, and BHS-144) is not possible, a Preservation Plan, prepared by the Lead Archaeologist, shall be provided. Previously evaluated significant sites are present and data recovery shall be conducted under the Data Recovery Plan for those sites that cannot be avoided or preserved in place. ~~these sites~~. Preservation-in-place options could include

capping the sites with sterile, chemically neutral soil, geofabric, and some form of shallow-rooted landscaping. A sample of the archaeological deposit shall be recovered before capping.

f. 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 significant cultural discoveries that cannot be avoided or preserved in place.

## Section 4.8, Greenhouse Gases

### Section 4.8, Green House Gas Emissions, Page 4.8-24

#### Cumulative Setting, Impacts, and Mitigation Measures

Emissions of GHGs and their contribution to global climate change are considered a cumulative impact by definition. Therefore, the geographic extent of the project's cumulative area of impact would be worldwide. As described under Impact 4.8-1 and shown in Table 4.8-4, Estimated Greenhouse Gas Emissions from Project Operation in 2025, annual emissions of project construction and operations would total 702 MTCO<sub>2</sub>e. The renewable energy generated by the proposed project would offset about 30,788 MTCO<sub>2</sub>e per year of grid-supplied electricity, resulting in an annual net GHG reduction of approximately 30,085 MTCO<sub>2</sub>e. As shown in Table 4.8-5, Estimated Greenhouse Gas Emissions from Project Lifetime, project decommissioning would generate an additional 5,387 MTCO<sub>2</sub>e. Thus, over the 35-year lifetime of the project, emissions would total approximately ~~24,585~~ 29,972 MTCO<sub>2</sub>e. The renewable energy generated during the 35 years of project operation would offset an estimated 1,077,571 MTCO<sub>2</sub>e of grid-supplied electricity. These displaced emissions would result in a total net GHG reduction of approximately ~~1,052,986~~ 1,047,599 MTCO<sub>2</sub>e over the project life.

## Section 4.9, Hazards and Hazardous Materials

### Section 4.9, Hazards and Hazardous Materials, Mitigation Measure MM 4.9-1, Page 4.4-24

**MM 4.9-1:** During the life of the project, including decommissioning, and prior to the issuance of grading or building permits, the project proponent 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:

- 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. Describe federal, State, or local agency coordination, as applicable, and clean-up efforts that would occur in the event of an accidental release.
- g. Prohibit the use of pesticides and herbicides in waterways, and include procedures to avoid or minimize dust from existing residual pesticides and herbicides use that may be present on the site.

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 project's permanent record.

## Section 4.10, Hydrology and Water Quality

### Section 4.10, Hydrology and Water Quality, 4.10.3, Regulatory Setting, Page 4.10-13

The Porter-Cologne Water Quality Control Act requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, which could affect the quality of the "waters of the State," file a report of waste discharge. Absent a potential effect on the quality of "waters of the State," no notification is required. However, the Regional Water Quality Control Board (RWQCB) encourages implementation of BMPs similar to those required for NPDES storm water permits to protect the water quality objectives and beneficial uses of local surface waters as provided in the Lahontan Regional Water Quality Control Plan (Basin Plan) (RWQCB, 2021). Under this plan, applicable beneficial uses of local surface waters would be classified as "Industrial Service Supply", which include beneficial uses of waters used for industrial activities.

## Section 4.12, Noise

### Section 4.12, Noise, Thresholds of Significance, Page 4.12-25

A project could have a significant noise-related adverse effect if it would result in:

- a. 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;
- b. Generation of excessive groundborne vibration or groundborne noise levels;
- ~~c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project;~~
- c. ¶ For a project located within the Kern County Airport Land Use Compatibility Plan, would the project expose people residing or working in the project area to excessive noise levels.



### Section 4.12, Noise, Mitigation Measure MM 4.12-4, Page 4.12-43

~~MM 4.12-4 Adequate noise shielding shall be provided to the project's onsite transformers and inverters such that the existing ambient noise level at the nearest offsite residential structure would not be exceeded by more than 5 dBA. 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 increase in ambient noise level is 5 dBA or less.~~

### Section 4.12, Noise, Mitigation Measure MM 4.12-5, Page 4.12-43

~~MM 4.12-45:~~ The emergency backup generator design shall incorporate noise control to ensure compliance with the applicable noise standards of Kern County and the WSSP during ~~period~~ periodic testing and emergency operation. Such measures may include, but are not limited to:

~~• The adequacy of the selected noise control technique(s) will be demonstrated in a focused acoustical study performed prior to the issuance of building permits to ensure that the applicable Kern County and WSSP noise standards (daily Ldn, daytime L50, and nighttime L50) would not be exceeded at any of the nearby noise sensitive receptors. The calculations will be based on the most recent available project plans and backup generator specifications.~~

- Locating the emergency backup generator away from noise-sensitive receptors;
- Selecting a quieter generator model;
- Equipping the generator with an appropriate muffler to reduce exhaust noise
- Equipping the generator with an appropriate sound enclosure to reduce radiated noise
- Placing noise barrier(s) around one or more sides of the emergency generator

The adequacy of the selected noise control technique(s) will be demonstrated in a focused acoustical study performed prior to the issuance of building permits to ensure that the applicable Kern County and WSSP noise standards (daily Ldn, daytime L50, and nighttime L50) would not be exceeded at any of the nearby noise-sensitive receptors. The calculations will be based on the most recent available project plans and backup generator specifications.

### Section 4.12, Noise, Mitigation Measure MM 4.12-6, Page 4.12-43 and 4.12-44

MM 12-6 shall be changed to MM 12-5 in this section and throughout the Draft EIR wherever referenced.

### Section 4.12, Noise, Mitigation Measure MM 4.12-7, Pages 4.12-43 and 4.12-44

~~MM 4.12-67:~~ For BESS/Substation Option 3, if selected for construction, the BESS design will be revised and/or noise control will be added as part of the final project design. Such revisions and noise control may include, but are not limited to, the following:

- Shifting the BESS to the west or northwest to increase its distance from sensitive receptor (SR)23, SR24, and SR25
- Selecting quieter BESS equipment
- Placing noise barrier(s) around one or more sides of the BESS equipment

The adequacy of the selected noise control technique(s) will be demonstrated in a focused acoustical study performed prior to the issuance of building permits to ensure that the applicable Kern County and WSSP

noise standards would not be exceeded at any of the nearby noise-sensitive receptors. The calculations will be based on the most recent available plans for the substation and BESS.

All mitigation measures for **MM 4.12-7** shall be changed to **MM 4.12-6** in this section and throughout the Draft EIR wherever referenced.

### **Section 4.12, Noise, Impact 4.12-3, Page 4.12-46**

**~~Impact 4.12-3: The project would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.~~**

~~As discussed under Impact 4.12-1, proposed project noise levels associated with operation of the BESS Option 3 would result in a significant operational noise impact. Average daytime ambient noise levels at studied receptors range from 30 to approximately 65 dBA Ldn (but would not exceed 65 dBA Ldn). Noise levels associated with BESS operation would reach up to 57 dBA Leq during the daytime and 56 dBA Leq during the nighttime hours at nearby sensitive receptors. The increase in ambient noise levels would be above the applicable daytime and nighttime thresholds (45 dBA Leq/L50 nighttime and 55 dBA Leq/L50 daytime within the WSSP and 65 dBA Ldn within the County). The proposed gen tie line would result in electrical discharge (corona discharge) noise that would not be perceptible above background noise levels at the nearest sensitive receptor. Operational traffic noise levels from operation of the proposed project would be minimal and therefore, the noise level increase would be substantially below the perceptible level of a 3 dBA increase.~~

~~Operation of BESS Option 3 would result in a substantial permanent increase in ambient noise levels in the project site vicinity above levels existing without the proposed project. Implementation of Mitigation Measures MM 4.12-6 would be required for construction and operation of BESS/Substation Options. The adequacy of the selected noise control technique(s) will be demonstrated in a focused acoustical study performed prior to the issuance of building permits to ensure that the applicable Kern County and Willow Springs Specific Plan noise standards would not be exceeded at any of the nearby noise-sensitive receptors. The calculations will be based on the most recent available plans for the substation and BESS. Mitigation Measure MM 4.12-5 includes design guidelines such as shifting the location of the emergency backup generator to incorporate noise control while Mitigation Measures MM 4.12-5 and MM 4.12-6 include shifting the BESS location to the northwest to increase the distance from the sensitive receptors, including 150 foot setback requirement from onsite stationary noise sources and project site boundary, selecting quieter BESS equipment, and installing noise barriers around BESS equipment where necessary to reduce~~

~~noise levels. Therefore, with implementation of Mitigation Measures MM 4.12-5 through MM 4.12-6, impacts would be reduced to less than significant levels.~~

***Mitigation Measures***

~~Implementation of Mitigation Measures MM 4.12-4 through MM 4.12-7 would be required for operation of BESS/Substation Option 3.~~

***Level of Significance after Mitigation***

~~Impacts would be less than significant.~~

## **Section 4.14, Transportation and Traffic**

### **Section 4.14, Transportation and Traffic, Page 4.14-24 and 4.14-25**

#### **Decommissioning**

Decommissioning of the proposed project would result in impacts similar to those caused by the project construction traffic, ~~but the duration would be about one third less than project construction.~~ The decommissioning period is projected to be shorter in duration than construction and take approximately 6 months to complete. (approximately four months).

Therefore, decommissioning of the proposed project would result in a less than significant impact with respect to LOS for roadways.

## **Chapter 6, Alternatives**

### **Chapter 6 – Alternatives, Alternative 2: Specific Plan and Zoning Buildout, Page 6.6-27**

Under this alternative, similar to the proposed project, construction activities have the potential to result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards. However, implementation of Mitigation Measures MM 4.12-1 ~~through MM 4.12-3 and MM 4.12-2~~ are designed to reduce impacts to the extent feasible during construction activities and, thus, impacts would be less than significant.

### **Chapter 6 – Alternatives, Alternative 3: Reduced Acreage Alternative, Page 6.6-28**

Under this alternative, similar to the proposed project, construction activities have the potential to result in the generation of a substantial temporary increase in ambient noise levels in the vicinity of the project in excess of standards. However, implementation of Mitigation Measures MM 4.12-1 ~~through MM 4.12-3 and MM 4.12-2~~ are designed to reduce impacts to the extent feasible during construction activities and, thus, impacts would be less than significant.

## **7.3 Response to Comments**

A list of agencies and interested parties who have commented on the Draft EIR is provided below. A copy of each numbered comment letter and a lettered response to each comment are provided following this list.

## State Agencies

Letter 1 – Lahontan Regional Water Quality Control Board (December 27, 2023)

Letter 2 – California Department of Fish and Wildlife (January 12, 2024)

Letter 3 – Caltrans, District 9 (January 17, 2024)

## Local Agencies

Letter 4 – Kern County Public Works Department – Building and Development – Survey (December 4, 2023)

Letter 5 – Kern County Public Works, Development Review Section; Floodplain Management Section; Sewer and Water Section; and CSA Section (December 7, 2023)

Letter 6 – Kern County Superintendent of Schools (December 22, 2023)

## Interested Parties

Letter 7 – Rahim Karim (December 15, 2023)

Letter 8 – Merlyn Neilson (January 11, 2024)

Letter 9 – Western States Regional Council of Carpenters (January 11, 2024)

Letter 10 – California Native Plant Society (CNPS) and Defenders of Wildlife (Defenders) (January 12, 2024)

Letter 11 – National Audubon Society (January 15, 2024)

## Comments Received After January 17, 2023, Close of Public Comment Period

Letter 12 – SoCalGas (January 18, 2024)

Letter 13 – International Brotherhood of Electrical Workers (January 23, 2024)

Letter 14 – Kern County Public Works Department – Building and Development (January 24, 2024)

### 7.3.1 State Agencies

#### Comment Letter 1: Lahontan Regional Water Quality Control Board (December 27, 2023)



#### Lahontan Regional Water Quality Control Board

December 27, 2023

File: Environmental Doc Review  
Kern County

Janice Mayes  
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Governor's Office of Planning & Research

**Dec 28 2023**

**STATE CLEARINGHOUSE**

#### Comments on the Draft Environmental Impact Report for Bullhead Solar Project, Kern County, State Clearinghouse No. 2022110504

Lahontan Regional Water Quality Control Board (Water Board) staff received the Draft Environmental Impact Report (EIR) for the above-referenced Project (Project) on December 1, 2023. The EIR was prepared by the Kern County Planning and Natural Resources 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 (CCR), title 14, section 15096. We thank the County for providing Water Board staff the opportunity to review and comment on the EIR. Based on our review, 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) identify post-construction storm water management as a significant Project component; and (3) identify and list the beneficial uses of all water resources within the Project area. Our comments are outlined below.

1-A  
1-B

#### 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.

1-C

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

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

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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](http://www.waterboards.ca.gov/lahontan/water_issues/programs/basin_plan/references.shtml).

↑  
1-C  
(con)

**GENERAL COMMENTS AND RECCOMENDATIONS**

Our general comments and recommendations, as they pertain to renewable energy development within the Lahontan Region, are outlined below.

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 EIR should identify post-construction storm water management as a significant Project component, and a variety of best management practices (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 strongly 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. The Project is located within the Antelope Hydrologic Unit (Hydrologic Unit No. 626.00) and overlies the Antelope Valley groundwater basin (Basin No. 6-44). The beneficial uses of these waters are listed either by watershed (for surface waters) and by groundwater basin (for groundwater) in Chapter 2 of the Basin Plan. The proposed Project should identify and list the beneficial uses of all water resources within the Project area.

↑  
1-D

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1-E

↑  
1-F

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- 4. 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. These locations should also be included on Project maps or site plans, which are needed to evaluate the Project impacts. 1-G
- 5. The EIR should include additional mitigation measures on preventing increased sedimentation, and erosion, resulting from increased impervious areas and sheet flow. 1-H

**SPECIFIC COMMENTS ON THE ENVIRONMENTAL REVIEW**

Our specific comments on the Project and environmental review, as they pertain to water quality and hydrology, are outlined below.

- 1. **Mitigation Measure (MM) 4.9-1**, should include a statement that the use of pesticides and herbicides will not be used in waterways on the project site. 1-I
- 2. **Project Impact 5.1 HYD-1**, states that the project may include construction of a retention basin for stormwater management, which would provide limited recharge to the aquifer and minimize runoff risk such as erosion and degrading water quality. Please include a statement including other methods that will be used to prevent runoff risk such as sedimentation and erosion, in the event that a retention basin is not constructed. 1-J

**PERMITTING REQUIREMENTS FOR INDIVIDUAL PROJECTS**

A number of activities associated with the proposed Project may 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.

- 1. Land disturbance of more than 1 acre and construction 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) 2022-0057-DWQ, obtained from the State Water Board, or individual storm water permit obtained from the Lahontan Water Board. 1-K
- 2. 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.
- 3. Construction of retention basins may require a National Pollutant Discharge Elimination System (NPDES) General Construction Storm Water Permit, Water Quality Order (WQO) 2022-0057-DWQ, obtained from the State Water Board, or individual storm water permit obtained from the Lahontan Water Board.

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We request that the draft EIR 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 website 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 draft EIR. If you have any questions regarding this letter, please contact me at (760) 243-2355, [tiara.crucius@waterboards.ca.gov](mailto:tiara.crucius@waterboards.ca.gov) or Christina Guerra, Senior Engineering Geologist, at (760) 241-7333, [christina.guerra@waterboards.ca.gov](mailto:christina.guerra@waterboards.ca.gov). Please send all future correspondence regarding this Project to the Water Board's email address at [Lahontan@waterboards.ca.gov](mailto:Lahontan@waterboards.ca.gov) and be sure to include the State Clearinghouse No. and Project name in the subject line.

1-L



Tiara Crucius  
Engineering Geologist

cc: California Department of Fish and Wildlife ([Reg4Assistant@wildlife.ca.gov](mailto:Reg4Assistant@wildlife.ca.gov))  
State Clearinghouse, SCH No. 2022110504 ([state.clearinghouse@opr.ca.gov](mailto:state.clearinghouse@opr.ca.gov))



## Response to Comment Letter 1: Lahontan Regional Water Quality Control Board (December 27, 2023)

- 1-A:** This comment is regarding the Lahontan Water Quality Control Board (LRWQCB) acknowledging the receipt of the Draft Environmental Impact Report (EIR) on December 1, 2023. The comment also acknowledges their statutory responsibility to comment on this EIR according to CEQA Guidelines, California Code of Regulations (CCR), title 14, section 15096. 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 necessary.
- 1-B:** This comment makes three separate recommendations related to natural drainage, post-construction storm water management, and beneficial uses of water resources within the project area. The drainage recommendation is that natural drainage channels and flow paths should be maintained which is consistent with the Kern County Grading Ordinance 17.28. Additionally, Mitigation Measure MM 4.10-2 (pages 4.10-24 and 4.10-25 of the Draft EIR) requires a hydrologic study and final drainage plan be designed to minimize runoff that would erode natural drainage channels and flow paths. Mitigation Measure MM 4.10-1 (page 4.10-24 of the Draft EIR) would require a Stormwater Pollution Prevention Plan (SWPPP) to minimize runoff and specify best management practices (BMPs) preventing sediment or any other pollutants from moving offsite and into natural drainage channels and flow paths. Any ground disturbing activities that would impact natural drainage would also be subject to Mitigation Measure MM 4.4-16, which requires the project proponent/operator to consult with the LRWQCB and the California Department of Fish and Wildlife (CDFW) on the need for a permit prior to the disturbance of jurisdictional resources (see pages 4.4-105 and 4.4-106 of the Draft EIR). Regarding post-construction storm water management, see response to comment 1-E, below. Regarding beneficial uses of water resources within the project area, see response to comment 1-F, below. 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 necessary.
- 1-C:** The comment provides an overview of the Water Board’s authority and the applicable laws and regulations which the Water Board enforces. The proposed project would abide by all Water Board requirements that are applicable to the proposed project. 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 necessary.
- 1-D:** The comment elaborates on the earlier recommendation that natural drainage patterns remain and that low impact development (LID) design measures be considered. As stated in Section 4.10, *Hydrology and Water Quality* (see page 4.10-27 of the Draft EIR), “...the proposed project would implement a SWPPP per Mitigation Measure MM 4.10-1 that would require preservation of the existing vegetation and topography the maximum extent feasible, as well as include erosion and sediment control BMPs designed to prevent erosion and sedimentation from occurring during project construction.” Additionally, page 4.10-27 also states, “...Mitigation Measure MM 4.10-2 requires the completion of a hydrologic study and final drainage plan for the proposed project prior to the issuance of a grading permit; the plan would demonstrate that the project site has been designed to minimize potential increases in runoff.” In addition to Mitigation Measures MM 4.10-1 and MM 4.10-2, MM 4.4-15 and MM 4.4-16 from Section 4.4, *Biological Resources* would also be implemented. Specifically, Mitigation Measure MM 4.4-15 would require the project proponent/operator to submit a final Jurisdictional Delineation report to the Kern County Planning

and Natural Resources Department, the United States Army Corps of Engineers, and the California Department of Fish and Wildlife (CDFW) with a copy also going to the LRWQCB. This final Jurisdictional Delineation report will show any existing and potential jurisdictional features within the project boundary which shall be avoided. For Mitigation Measure MM 4.4-16, the project proponent/operator shall file a complete Report of Waste Discharge with the RWQCB to obtain Waste Discharge Requirements and shall also consult with CDFW on the need for a streambed alteration agreement. If permits are needed, the project proponent/operator shall obtain those permits prior to ground disturbance. Collectively, these mitigation measures would satisfy the LID characteristics identified in this comment. This comment has been noted for the record and revisions to the Draft EIR are not necessary.

**1-E:** This comment suggests that the Draft EIR identify post-construction storm water management as a significant project component along with BMPs that treat post-construction water runoff, particularly by maintaining native vegetation. As stated in response to comment 1-D, above, a SWPPP would be required, per Mitigation Measure MM 4.10-1. Under Mitigation Measure MM 4.10-1, the project proponent/operator would be required to minimize removal of existing vegetation, which would ensure that post-construction retention of native vegetation would be prioritized. Additionally, Mitigation Measure MM 4.10-2, which requires a hydrologic study and final drainage plan, would require the project proponent/operator to demonstrate the project site will minimize potential increases in runoff. Therefore, potential impacts related to water quality standards and waste discharge, including surface waters requirements, would be less than significant. The proposed project would comply with the LRWQCB's recommendation. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**1-F:** This comment is asking the project to identify and list the beneficial uses of all water resources within the project area, which is located with the Antelope Hydrologic Unit (Hydrologic Unit No. 626.00), and the Antelope Valley groundwater basin (Basin No. 6-44). The Antelope Hydrologic Unit does not outlet to the Pacific Ocean and is closed system, and the numerous streams originating in the mountains and foothills either infiltrate into the groundwater basin, evaporate, or flow across the valley floor to eventually pond in the dry lakes. Streams in this region are generally ephemeral to intermittent, as they only flow in response to rain events. As stated on page 4.10-1 and 4.10-2 of the Draft EIR, "Due to the relatively impervious nature of the dry lake soil and high evaporation rates, water that collects on the dry lakes eventually evaporates rather than infiltrating into the groundwater."

As discussed in detail in Section 4.10, *Hydrology and Water Quality* of the Draft EIR, the project would require the implementation of a SWPPP and drainage plan, respectively, which would reduce impacts to surface waters and groundwater during construction and operation; see Mitigation Measures MM 4.10-1 and MM 4.10-2. Therefore, potential impacts related to water quality standards and waste discharge, including surface waters and groundwater requirements, would be less than significant. However, in response to this recommendation, the Draft EIR has been revised as follows:

#### **Section 4.10.3, Regulatory Setting, Page 4.10-13**

The Porter-Cologne Water Quality Control Act requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, which could affect the quality of the "waters of the State," file a report of waste

discharge. Absent a potential effect on the quality of “waters of the State,” no notification is required. However, the Regional Water Quality Control Board (RWQCB) encourages implementation of BMPs similar to those required for NPDES storm water permits to protect the water quality objectives and beneficial uses of local surface waters as provided in the Lahontan Regional Water Quality Control Plan (Basin Plan) (RWQCB, 2021). Under this plan, applicable beneficial uses of local surface waters would be classified as “Industrial Service Supply”, which include beneficial uses of waters used for industrial activities.

- 1-G:** This comment states that project details such as site equipment staging areas, excavated soil stockpiles, and hazardous materials storage, should be mapped and described in order to evaluate Project impacts, and it should be located in upland areas outside surface waters and adjacent flood plain areas. The project site is located in a Floodplain Combing District and a Floodplain Secondary Combining District. As a result, both districts have certain restrictions imbedded in them to prohibit certain uses/activities. Specifically, as described on pages 4.10-17 and 4.10-18 of the Draft EIR, this zoning prohibits, “Dumping, stockpiling, or storage of floatable substances or other materials which, in the opinion of the Kern County Engineering and Survey Services Department, will add to the debris loads of the stream or watercourse.” Additionally, under Chapter 19.70 Floodplain Combing District, Section 19.70.040, Measure C, adding to the debris loads of the stream or watercourse is prohibited, “...unless protected by flood control devices approved by the Kern County Public Works Department and constructed in accordance with Section 19.70.130.” The project will comply with these requirements.

In conjunction with the previously mentioned Kern County Ordinances, the project will also implement Mitigation Measure MM 4.9-1, which requires preparing and maintaining a Hazardous Materials Business Plan (HMBP). As part of the HMBP, the project proponent must delineate hazardous material and hazardous waste storage areas. This will be taken in conjunction with the Kern County Ordinances to ensure that hazardous materials are stored upland. Additionally, the project will implement a SWPPP per Mitigation Measure MM 4.10-1. As part of the SWPPP, the project proponent will be required to display the locations of equipment staging areas, excavated soil stockpiles, and hazardous materials. This SWPPP must be approved by the Kern County Planning and Natural Resources Department and/or the Kern County Public Works Department. As such, 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 necessary.

- 1-H:** This commenter provides a general request for additional mitigation measures on preventing increased sedimentation and erosion resulting from increased impervious areas and sheet flow. As stated in the Draft EIR, the proposed project would implement a SWPPP per Mitigation Measure MM 4.10-1, which includes the preservation of vegetation and topography and implementation of erosion and sediment control BMPs which are designed to prevent erosion and sedimentation from occurring during construction. In addition, and as stated on page 4.10-27, “...Mitigation Measure MM 4.10-2 requires the completion of a hydrologic study and final drainage plan for the proposed project prior to the issuance of a grading permit...” and “Any stormwater management features would be consistent with existing regulatory requirements and would minimize any erosion or sedimentation to less than significant levels.” The project will also be required to incorporate the Kern County Grading Ordinance which requires erosion prevention measures. The fact that most drainage flow will infiltrate the soils on site, the impervious surfaces will increase marginally

during the operational phase, and that Mitigation Measures MM 4.10-1 and MM 4.10-2 will be implemented will prevent increased sedimentation and erosion. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

- 1-I:** This comment specifically pertains to Mitigation Measure MM 4.9-1 of the Draft EIR. The commenter is requesting that language be added to Mitigation Measure MM 4.9-1. Specifically, the commenter is requesting that a statement be included that states that pesticides and herbicides not be used in waterways on the project site. In response to this comment, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measure 4.9-1, Page 1-72 and Page 4.9-24**

**MM 4.9-1:** During the life of the project, including decommissioning, and prior to the issuance of grading or building permits, the project proponent 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:

- 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. Describe federal, State, or local agency coordination, as applicable, and clean-up efforts that would occur in the event of an accidental release.
- g. Prohibit the use of pesticides and herbicides in waterways, and include procedures to avoid or minimize dust from existing residual pesticides and herbicides use that may be present on the site.

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 project's permanent record.

- 1-J:** This comment is regarding other potential methods to prevent runoff risk if a retention basin is not constructed as referenced in Impact 4.10-1, on pages 4.10-23 and 4.10-24 of the Draft EIR. As noted in comment 1-H, above, there are a number of factors, regulations, and mitigation measures

that will prevent an increase in erosion and sedimentation, should a retention basin(s) not be constructed. The Draft EIR notes on pages 4.10-23 and 4.10-24 that, “Structural BMPs could include the development of a retention basin or basins for the proposed project.” and that “The sizing and location of the basin(s) would be included in the drainage plan.” Specifically, the sizing and location of the basin(s) would be found in the drainage plan which is a requirement per Mitigation Measure MM 4.10-2.

The project would also be required to implement a SWPPP per Mitigation Measure MM 4.10-1. The Draft EIR adequately describes how the SWPPP and compliance with local Kern County ordinances and regulations would prevent increased sedimentation and erosion. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

- 1-K:** This comment is in regard to the potential for two permits (NPDES General Construction Permit, and Section 401 water quality permits for the project that would be issued by either the State Water Resources Board (State Water Board) or the LRWQCB. On page 4.10-11 of the Draft EIR, it is acknowledged that the project would disturb one acre or more and that NPDES coverage under Construction General Permits would be required. Thus, the project would be required to adhere to the Kern County NPDES applicability requirements. This will be accomplished by the development and implementation of a SWPPP per Mitigation Measure MM 4.10-1. The SWPPP would aim to implement BMPs that prevent all construction pollutants from contacting stormwater with the intent of keeping all products of erosion from moving off site into receiving waters.

As stated on pages 4.10-23 and 4.10-24 of the Draft EIR, the Kern County Development Standards and Kern County Code of Building Regulations and as part of Mitigation Measure MM 4.10-2, a drainage plan would include post-construction structural and nonstructural BMPs. Structural BMPs could include the development of a retention basin or basins onsite. If built, the exact sizing and location would be included in the drainage plan. As such, the project will adhere to this permit, if applicable, by the State Water Board or LRWQCB.

Regarding Clean Water Act (CWA) section 401 water quality certification, for activities such as streambed alteration and/or discharge of fill material to a surface water, Mitigation Measures MM 4.4-15 and MM 4.4-16 in Section 4.4, *Biological Resources*, requires that a final Jurisdictional Delineation report be prepared and provided to the LRWQCB and that Report of Waste Discharge be submitted to the LRWQCB. Mitigation Measures MM 4.10-1 and MM 4.9-1 as previously described will also be required. The project will adhere to permit requirements as applicable, by the LRWQCB. Therefore, the proposed project would comply with the LRWQCB’s recommendations. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

- 1-L:** The comment requests the Draft EIR recognize the aforementioned potential permits and recommends early consultation with LRWQCB staff. As described in Chapter 3, *Project Description*, on page 3-39, of the Draft EIR, it is acknowledged that the project would have to comply with all applicable permits from the LRWQCB, including any waste discharge requirements, in order to obtain the necessary discretionary approvals. The comment has been noted for the record revisions to the Draft EIR are not necessary.

## Comment Letter 2: California Department of Fish and Wildlife (January 12, 2024)



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](http://www.wildlife.ca.gov)

*GAVIN NEWSOM, Governor*  
*CHARLTON H. BONHAM, Director*



January 12, 2024

Janice Mayes, Planner III  
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2700 M Street, Suite 100  
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[majesj@kerncounty.com](mailto:majesj@kerncounty.com)

Subject: **Bullhead Solar Project by EDF Renewables, LLC (Project)**  
**Draft Environmental Impact Report (DEIR)**  
**State Clearinghouse No. 2022110504**

Dear Janice Mayes:

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 Bullhead Solar Project by EDF Renewables, LLC (Project) pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

2-A

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.

### 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

2-B

<sup>1</sup> 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. ↑ 2-B  
Con.

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. 2-C

**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). 2-D

**Protected Furbearing Mammals:** CDFW has jurisdiction over furbearing mammals pursuant to Title 14, California Code of Regulations, Section 460. This Section states, “Fisher, marten, river otter, desert kit fox and red fox may not be taken at any time”; therefore, CDFW cannot authorize their “take”. 2-E

**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. 2-F

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. 2-G

**PROJECT DESCRIPTION SUMMARY**

**Proponent:** EDF Renewables, LLC

**Objective:** The Project proposes to construct and operate a photovoltaic (PV) solar facility which would generate up to 270 megawatts (MW) of renewable electrical energy with a battery energy storage system (BESS) capable of storing approximately 270 MW or 1,080 megawatt-hours (MWh) of storage capacity. The proposed Project also includes associated infrastructure such as laydown yards, a meteorological station, 2-H  
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microwave/communication tower, and a substation. PV panels, inverters, converters, foundations, and transformers would be installed onsite. The proposed Project also includes preferred and optional generation-tie (gen-tie) routes to the Rosamond or Whirlwind substations, only one of which would be constructed.

**Location:** The Project site is located on approximately 1,343 acres, comprised of 22 privately owned parcels in the southern unincorporated area of Kern County, adjacent to the previously approved BigBeau Solar project. Assessor's Parcel Number (APN) 358-051-03 would be used by the project proponent as a connector road to the BigBeau Solar project. The Project site is approximately 8 miles northwest of the community of Rosamond, and 2 miles north of the community of Willow Springs. The Project site is approximately 12 miles southwest of State Route (SR) 58 and approximately 7 miles west of SR-14 (Antelope Valley Freeway). SR-138 (West Avenue D) is approximately 9 miles to the south in Los Angeles County. The Project site is generally bounded by Favorito Avenue to the south, Champagne Avenue to the north, 105<sup>th</sup> Street West and the BigBeau Solar Project to the west, and 80th Street West to the east. The Project site is bisected by Tehachapi Willow Springs Road.

**Timeframe:** Construction would begin in the third quarter of 2024 and would extend for approximately 18 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 creosote bush scrub communities including creosote bush scrub, rabbitbrush scrub, Joshua tree woodland, active and fallow agricultural fields, orchards and tamarisk groves, ruderal habitats, and disturbed and developed areas. Based on a review of the Project description, California Natural Diversity Database (CNDDDB) records, and the surrounding habitat, several special-status species could potentially be impacted by Project activities.

Currently, the DEIR acknowledges that the Project site is within the geographic range of several special-status 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 species, including the State threatened Mohave ground squirrel (*xerospermophilus mohavensis*) and Swainson's hawk (*Buteo*



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2-I

2-J

2-K



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*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 northern California legless lizard (*Anniella pulchra*).

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2-K  
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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*) and recurved larkspur (*Delphinium recurvatum*); and the CRPR 4.2 Mojave spineflower (*Chorizanthe spinosa*). Finally, CDFW has concerns with potential impacts to migratory and non-migratory nesting birds.

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2-L

**Mohave Ground Squirrel**

The DEIR notes that the Mohave ground squirrel (MGS) is absent from the Project site as the Project is not located within the generally accepted range of the species, no CNDDDB occurrences are known to occur west of SR-14, and no individuals were documented during 2021 surveys for the Project, which followed the 2009 Mohave Ground Squirrel Survey Guidelines (CDFG 2009). It should be noted that CDFW does not consider SR-14 to be the definitive western boundary of the MGS range and there is the potential that the species could occur within or adjacent to the Project site over the life of the Project. Additionally, CDFW would like to note that MGS surveys are only valid for one year and should be conducted during the survey season immediately prior to the initiation of ground-disturbing activities. As such, CDFW recommends the following:

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2-M

**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 2023 Mohave Ground Squirrel Survey Guidelines (CDFW 2023a) 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 proponent 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.

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2-N

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**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.

2-O

**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).

2-P

**Swainson’s Hawk**

The DEIR notes that 11 active Swainson’s hawk (SWHA) nests were documented within five miles of the Project site and three active SWHA nests could potentially be directly impacted by construction activities. Mitigation Measure MM 4.4-9 is provided to mitigate for potential impacts to the species and proposes to require 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 conducted during the survey season immediately prior to Project construction. Mitigation Measure MM 4.4-9 would also require preconstruction surveys, avoidance buffers, and the potential need for mitigation.

2-Q

As the DEIR notes that 11 active SWHA nests were documented within five miles of the Project site and three active SWHA nests would potentially be directly impacted by construction activities, CDFW strongly recommends the following:

**Recommended Mitigation Measure 4: SWHA Take Authorization**

As the DEIR notes that construction activities would impact nesting SWHA and there is a strong potential that SWHA would utilize the Project site over the life of the Project, CDFW strongly recommends the Project obtain an ITP pursuant to Fish and Game Code section 2081 subdivision (b), to avoid the unauthorized take of SWHA.

2-R

Mitigation Measure MM.4-9 also states that, “During the nesting season (March 1 through September 15), ensure no new ground disturbances, habitat conversions, or

2-S

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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 portion of the measure, as any adjustment of a ½-mile SWHA buffer would potentially result in the unauthorized take of the species. As such, CDFW reiterates the recommendation to obtain an ITP pursuant to Fish and Game Code section 2081 subdivision (b) to avoid the unauthorized take of SWHA.

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2-S  
Con.

Mitigation Measure MM 4.4-10 states that, “The project proponent shall mitigate for the loss of Swainson’s Hawk nesting and foraging habitat at a ratio of 0.5:1 based on the total approved area of the project. 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 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. As such, CDFW recommends the following:

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2-T

**Recommended Mitigation Measure 5: 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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2-U

**Desert Tortoise**

Mitigation Measure MM 4.4-7 states that, “Within 14 days prior to the commencement of any ground-disturbing activities the project operator shall conduct preconstruction surveys for desert tortoise within the project area. The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service protocol (2010). If no burrows or tortoises are discovered during preconstruction surveys, no further mitigation is necessary. The desert tortoise is a federally and state threatened species and consequently, impacts that would cause “take” of the species would require the issuance of Incidental Take Permits from both the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to comply with the Federal Endangered Species Act and California Endangered Species Act. If burrows or tortoises are identified on the project site during preconstruction surveys, the project operator shall be required to consult with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife regarding take coverage, and adhere to the following minimum conditions:” CDFW concurs with this portion of Mitigation Measure MM 4.4-7 but

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2-V  
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recommends that surveys follow the updated protocol, Preparing for Any Action That May Occur Within the Range of the Mojave Desert Tortoise (USFWS 2019), and that these surveys be conducted during the survey season immediately prior to construction and during the time period when desert tortoise (DT) are most active. Survey results should be submitted to both CDFW and the U.S. Fish and Wildlife Service (USFWS). If surveys indicate the presence or potential presence of desert tortoise, CDFW recommends the Project consult and obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

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 2-V  
 Con.

**Crotch’s Bumble Bee**

The DEIR notes that the Project site is within the range of Crotch’s bumble bee (CBB), suitable habitat is present, and the species has a moderate potential to occur within portions of the Project site, and Mitigation Measure MM 4.4-3 is proposed to mitigation for impacts. Mitigation Measure MM 4.4-3 requires preconstruction surveys, reporting requirements, and avoidance buffers. CDFW is concerned that several portions of Mitigation Measure MM 4.4-3 would conflict with the survey guidance outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023b) document. Additionally, CDFW is concerned that the measure may not adequately mitigate impacts and avoid take. CDFW’s concerns are provided in more detail below:

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 2-W

Mitigation Measure MM 4.4-3 states that, “Prior to any ground-disturbing activities in the active season for Crotch bumble bee (February 1 through October 31), a qualified biologist (a biologist holding an MOU for Crotch bumble bee) should conduct a preconstruction survey within habitats identified as having a moderate potential for Crotch bumble bee to occur. The biologist should perform meandering transects on three separate days over a 14-day period prior to construction within the planned activity footprint. To the extent possible, surveys should be conducted between 9am and 1pm, when temperatures are between 65-90F, and when wind speeds are less than 8 miles per hour to encompass the period when bees are most active. The biologist should collect photographic vouchers of bumble bees (i.e., genus *Bombus*) to the extent possible through photographing the bee on floral resources, or by netting and chilling the specimens (conducted by a biologist holding an MOU for the Crotch’s bumble bee) and obtaining diagnostic photographs of the captured bees. Survey data should be captured on the California bumble bee atlas (CBBA) data sheet or a project specific data sheet if it encompasses the same CBBA data sheet information (available at: [https://www.cabumblebeeatlas.org/uploads/1/1/6/9/116937560/cabba\\_data\\_sheet\\_2023.pdf](https://www.cabumblebeeatlas.org/uploads/1/1/6/9/116937560/cabba_data_sheet_2023.pdf)). Survey results should be provided to the California Department of Fish and Wildlife and Kern County Natural Resources Department.” CDFW does not concur that survey procedures outlined above would be adequate to determine presence/absence of CBB within a given season, and recommends the following:

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 2-X

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**Recommended Mitigation Measure 6: CBB Surveys Prior to Construction**

CDFW recommends that a qualified biologist conduct focused surveys for CBB, and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023b), during the blooming period immediately prior to construction.

2-Y

Mitigation Measure MM 4.4-3 continues by stating that, “If a suspected or confirmed Crotch bumble bee is detected in the Project Area, every effort shall be made to find the nest. If a nest is found in the Project Area, the biologist shall delineate a 50-foot ‘no activity’ buffer around the nest until the nest senesces (becomes inactive and is no longer in use). If no suspected or confirmed Crotch bumble bee is detected in the planned activity footprint, construction could proceed without further measures.” CDFW would like to note that any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take. As such, CDFW recommends the following:

2-Z

**Recommended Mitigation Measure 7: CBB Take Authorization**

In the event a CBB nest is detected within the Project site, 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).

2-AA

**Western Joshua Tree**

Mitigation Measure MM 4.4-14 states that, “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 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 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:

2-BB

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**Recommended Mitigation Measure 8: 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).

2-CC

**Recommended Mitigation Measure 9: 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.

2-DD

**Desert Kit Fox**

Mitigation Measure MM 4.4-6 (b) states that, "Preconstruction surveys shall be conducted by a qualified biologist for the presence of American badger or desert kit fox dens within 14 days prior to commencement of construction activities. The surveys shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes desert scrub habitats. 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 prior to that portion of the project site disturbed. If potential dens are observed and avoidance is feasible, the following buffer distances shall be established prior to construction activities:

- Desert kit fox or American badger potential den: 50 feet.
- Desert kit fox or American badger active den: 100 feet.
- Desert kit fox or American badger natal den: 500 feet.

2-EE

If avoidance of the potential dens is not possible, the following measures are required to avoid potential adverse effects to the American badger and desert kit fox:

1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent American badgers or desert kit foxes from re-using them during construction.
2. If the qualified biologist determines that potential dens may be active, an on-site passive relocation program shall be implemented. This program shall consist of excluding American badgers or desert kit foxes from occupied burrows by installation of one-way doors at burrow entrances, monitoring of the burrow for



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seven (7) days to confirm usage has been discontinued, and excavation and collapse of the burrow to prevent reoccupation. After the qualified biologist determines that American badgers or desert kit foxes have stopped using the dens within the project boundary, the dens shall be hand-excavated with a shovel to prevent re-use during construction.”

↑  
2-EE  
Con.

CDFW would like to note that desert kit fox (DKF) is considered a furbearing mammal, pursuant to Title 14, California Code of Regulations, Section 460, and CDFW cannot authorize the species take. As implementation of Mitigation Measure MM 4.4-6 has the potential to result in take of DKF, it is recommended that the Project proponent consult with CDFW for guidance on appropriate take avoidance measures if active DKF dens are documented on the Project site, and the buffers outlined in Mitigation Measure MM 4.4-6 are not able to be maintained.

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2-FF

Mitigation Measure MM 4.4-5 (d) states that, “To prevent inadvertent entrapment of desert kit foxes, American badgers, or other wildlife 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, or provided with one or more escape ramps constructed of earth fill or wooden planks. All holes and trenches, whether covered or not, shall be inspected for trapped wildlife at the start and end of each workday. Before such holes or trenches are filled, they shall be thoroughly inspected by the Lead Biologist or approved biological monitor for trapped wildlife. If trapped animals are observed, escape ramps or structures shall be installed immediately to allow escape. If a listed species is found trapped, all work shall cease immediately. If the animal is apparently uninjured, then the Lead Biologist shall directly supervise the provision of escape structures and/or trench modification to allow the trapped animal to escape safely. Work shall not resume in the vicinity of the animal, and it shall be allowed to leave the work area and project site on its own. If the listed animal is injured, then the Lead Biologist or approved biological monitor shall immediately contact the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife to identify an individual with the appropriate permit or authorization to handle listed species, who shall bring the animal to a pre-identified wildlife rehabilitation or veterinary facility for care.” CDFW concurs with this measure; however, it is recommended that all holes and trenches, whether covered or not, be inspected for trapped wildlife at the start and end of each workday by the Lead Biologist or approved biological monitor.

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2-GG

Mitigation Measure MM 4.4-5 (l) states that, “To enable kit foxes and other wildlife (e.g., American badger) to pass through the project site after construction, the security fence, and any permanent interior fencing shall be a wildlife friendly design that meets the goals of allowing wildlife to move freely through the project site during operation, leaving 4- to 7-inch openings or portals in the fence or the fence shall be raised 7 inches above the ground leaving a gap between the fence mesh and the ground. In the latter case the

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2-HH

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bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that passes under the fence.” 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.

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 2-HH  
 Con.

**Northern California Legless Lizard**

The Project DEIR notes that northern California legless lizard (NCLL) has a moderate potential to occur within the Project vicinity and the Project site contains suitable habitat for the species; however, it appears no mitigation measures are proposed to mitigate for potential impacts. As such, CDFW recommends the following:

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 2-II

**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.

↑  
 2-JJ

**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(s) may relocate NCLL out of the Project site and into a nearby area with suitable habitat.

↑  
 2-KK

**Other Special Status Plant Species**

Mitigation Measure MM 4.4-12 states that, “Within 14 days prior to the commencement of any ground-disturbing activities, the project operator shall conduct preconstruction surveys for special-status and protected plant species within the project area, including but not limited to, alkali mariposa lily and recurved larkspur. After the preconstruction survey determines the exact location of these species, if present, on the project site and the number of individuals or populations present, the project proponent/operator shall submit written documentation to the Kern County Planning and Natural Resources Department confirming implementation of the measures described below.” CDFW concurs with the portion of the measure that requires preconstruction special status plant surveys, but recommends that the surveys be conducted during the appropriate plant bloom period immediately prior to construction. Conducting surveys during the

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 2-LL  
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appropriate bloom period will ensure that special status plant species will have germinated and be identifiable during surveys.

↑ 2-LL  
 Con.

Mitigation Measure MM 4.4-12 (a) continues by stating that, “The project proponent/operator shall work with a qualified biologist to determine presence of alkali mariposa lily and recurved larkspur and identify all known locations of alkali mariposa lily to establish “avoidance areas”. All special-status plants found within the project site shall be avoided by a buffer of 25 feet. Sturdy, highly visible, orange plastic construction fencing (or equivalent material verified by the authorized biologist) shall be installed around all locations of detected special-status plants to protect from impacts during the construction phase, until they can be relocated. The fence shall be securely staked and installed in a durable manner that would be reasonably expected to withstand wind and weather events and last at least through the construction period. Fencing shall be removed upon completion of the project construction.” CDFW does not concur that a 25-foot no-disturbance buffer would be sufficient to avoid take of special-status plants and recommends the following:

2-MM

**Recommended Mitigation Measure 12: 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.

2-NN

**Nesting Birds**

Mitigation Measure MM 4.4-11 states that, “If construction is scheduled to commence during the non-nesting season (i.e., September 1 to January 31), no preconstruction surveys or additional measures are required. To avoid impacts to nesting birds in the project area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within the project site for construction activities that are initiated during the breeding season (i.e., February 1 to August 31). The raptor survey shall focus on potential nest sites (e.g., cliffs, large trees, windrows) within a 0.5-mile buffer around the project site. Surveys shall be conducted no more than 14 days prior to construction activities. Surveys need not be conducted for the entire project site at one time; they may be phased so that surveys occur shortly before a portion of the project site is disturbed. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance. If active nests are found, a suitable buffer (e.g., 200–300 feet for common raptors; 0.5 mile for Swainson’s hawk; 30–50 feet for passerine

2-OO

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species) shall be established around active nests and no construction within the buffer allowed until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). For non-listed species, encroachment into the avoidance buffer may occur at the discretion of a qualified biologist; however, for State-listed species, consultation with CDFW shall occur prior to encroachment into the aforementioned buffers.”

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2-00  
Con.

CDFW does not concur that Mitigation Measure MM 4.4-11 is sufficient to mitigate impacts to nests during the bird breeding season, particularly for the portions of the measure that states surveys be conducted 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:

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2-PP

**Recommended Mitigation Measure 13: 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.

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2-QQ

**Recommended Mitigation Measure 14: 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 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

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2-RR  
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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.

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2-RR  
Con.

**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.

↑  
2-SS

**Lake and Streambed Alteration:** Based on the information provided in the DEIR, the Project 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.

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2-TT

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](mailto:R4LSA@wildlife.ca.gov).

↑  
2-UU

**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

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2-VV  
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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, tricolored blackbird, DT, CBB, WJT, American badger, DKF, BUOW, NCLL, and special status plant species, including, but not limited to, alkali mariposa-lily, recurved larkspur, and Mojave spineflower. CDFW staff is available for consultation in support of cumulative impacts analyses as a trustee and responsible agency under CEQA.

↑  
2-VV  
Con.

**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. €). 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: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto: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>.

2-WVV

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

2-XX

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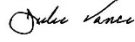
**CONCLUSION**

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](mailto:Jeremy.Pohlman@wildlife.ca.gov).

2-YY

Sincerely,

DocuSigned by:  
  
FA83F09FE08945A...

Julie A. Vance  
Regional Manager

ec: State Clearinghouse  
Governor's Office of Planning and Research  
[State.Clearinghouse@opr.ca.gov](mailto:State.Clearinghouse@opr.ca.gov)

United States Fish and Wildlife Service  
Patricia Cole; [patricia\\_cole@fws.gov](mailto:patricia_cole@fws.gov)

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- 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.
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- 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: Bullhead Solar Project**

**SCH No.: 2022110504**

<b>RECOMMENDED MITIGATION MEASURE</b>	<b>STATUS/DATE/INITIALS</b>
<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 take authorization	
Recommended Mitigation Measure 5: SWHA foraging habitat mitigation	
CBB	
Recommended Mitigation Measure 6: CBB surveys prior to construction	
Recommended Mitigation Measure 7: CBB take authorization	
WJT	
Recommended Mitigation Measure 9: WJT take authorization	
NCLL	
Recommended Mitigation Measure 10: NCLL surveys prior to construction	
Nesting Birds	
Recommended Mitigation Measure 13: Nesting bird surveys prior to construction	
<i>During Construction</i>	
MGS	
Recommended Mitigation Measure 2: MGS avoidance buffer	
WJT	
Recommended Mitigation Measure 8: WJT avoidance buffer	
NCLL	
Recommended Mitigation Measure 11: NCLL avoidance buffer	
Other Special Status Plant Species	
Recommended Mitigation Measure 12: Other special status plant species avoidance buffer	

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Nesting Birds	
Recommended Mitigation Measure 14: Nesting bird monitoring and avoidance buffer	



## Response to Comment Letter 2: California Department of Fish and Wildlife (January 12, 2024)

- 2-A:** This is an introductory comment thanking Kern County for the opportunity to comment on the Draft EIR. Thank you for your comment. The County acknowledges receipt of the California Department of Fish and Wildlife (CDFW) comment letter and detailed responses to each comment are provided below.
- 2-B:** The comment clarifies CDFW's jurisdiction as Trustee Agency for fish and wildlife resources. As a Trustee Agency, the CDFW holds those resources in trust by statute for all the people of the State (Fish & Game Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). In their trustee capacity, CDFW 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.). The County acknowledges CDFW's role and responsibilities as a CEQA Trustee Agency pursuant to CEQA Guidelines as summarized in this comment.
- 2-C:** The comment clarifies that CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) and that CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code, stating for example that to the extent that 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. The County acknowledges CDFW's role and responsibilities as a CEQA Responsible Agency pursuant to CEQA Guidelines as summarized in this comment.
- 2-D:** The comment clarifies CDFW's jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds.
- The County acknowledges that 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, eggs and nests include, sections 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). No changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 2-E:** No changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 2-F:** No changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 2-G:** No changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 2-H:** The comment provides a brief summary of the proposed project's objectives, location, and timeframe. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 2-I:** The comment discusses CDFW comments and recommendations to assist Kern County Planning Department in adequately identifying and/or mitigating the project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. It also states that editorial comments or other suggestions are included to improve the document. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 2-J:** The comment states that there may be several special-status resources present within the project location and could be potentially impacted by project activities. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 2-K:** The comment states that the Draft EIR acknowledges that the project site is within the geographic range of several special-status 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 species. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 2-L:** The comment states that 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. CDFW has concerns with potential impacts to migratory and non-migratory nesting birds.

CDFW's specific concerns are set forth in subsequent portions of the comment letter. Please refer to the responses below for additional details. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 2-M:** This comment states that the Draft EIR notes that the Mohave ground squirrel is absent from the project site as the project is not located within the generally accepted range of the species, no California Natural Diversity Database (CNDDDB) occurrences are known to occur west of SR-14, and no individuals were documented during 2021 surveys for the project, which followed the 2009 Mohave Ground Squirrel Survey Guidelines (CDFG 2009). CDFW further notes the agency does not consider SR-14 to be the definitive western boundary of the Mohave ground squirrel range and there is the potential that the species could occur within or adjacent to the project site over the life of the project. Additionally, CDFW notes that Mohave ground squirrel surveys are only valid for one year and should be conducted during the survey season immediately prior to the initiation of ground-disturbing activities.

Appendix E-2 of the Biological Resources Technical Report (BRTR) contains a Mohave Ground Squirrel (MGS) Work Plan submitted to CDFW (ICF 2023). Within the introduction of the Work Plan, this text was provided: "A Conservation Strategy for the Mohave Ground Squirrel (CDFW 2019) defined the western boundary of the geographical range of Mohave ground squirrel as a roughly north-south line near SR-14 from Mojave south to Palmdale. CDFW (2019) conducted an exhaustive review of MGS records and trapping efforts and found that Mohave ground squirrels have never been reported or detected in the western Antelope Valley (defined as areas west of SR-14). In addition to this review, adjacent solar projects to this proposed project which also had negative trapping results included: Catalina Solar 2/ BAR 13 project in 2012, Valentine Solar project in 2015, and the BigBeau Solar project in 2018. CDFW (2019) stated the lack of any positive records of the species in the area supports the conclusion that the western Antelope Valley is not currently occupied by Mohave ground squirrel. The Mohave ground squirrel protocol

(CDFW 2010) states that protocol-trapping may be required in areas up to five miles from the currently documented range. The eastern limit of the proposed project is six miles west of SR-14, which is the currently defined geographical boundary of the species (CDFW 2019).”

A project specific MGS Work Plan was provided to CDFW, and protocol trappings were conducted at the project site in accordance with CDFW’s Guidelines and in coordination for the Department. All trapping efforts were negative. Furthermore, the CDFW (2019) publication, the Mohave ground squirrel protocol (CDFW 2010), as well as the project’s location more than 5 miles west of the species’ currently document range, that Mohave ground squirrel are absent from the site and that further surveys are not required to reduce or avoid impacts to this species.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 2-N:** This comment states that CDFW recommends that a qualified biologist, with appropriate permits, conduct protocol surveys for MGS following the methods described in the 2023 Mohave Ground Squirrel Survey Guidelines (CDFW 2023a) 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 proponent 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 Mohave ground squirrel surveys are valid for one year and should be conducted during the survey season immediately prior to the initiation of ground-disturbing activities.

The Bullhead Project site is not within the generally accepted current range of Mohave ground squirrel. There are no records of occurrence for this species west of SR-14, between Palmdale and Mojave, within 15 miles of the project site. Survey results for several adjacent solar developments were all negative. No Mohave ground squirrels were captured, observed, or heard during the 2021 protocol surveys. Mitigation Measure MM 4.4-1 requires that the project 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. The Lead Biologist or approved Biological Monitor shall be on the project site during construction and decommissioning of the project, further minimizing potential impacts. Given that no Mohave ground squirrel was detected, the negative results of numerous protocol-level surveys within the vicinity of the project, and the lack of historical records of the species’ presence in the area, Mohave ground squirrel is not expected to occur and is considered absent from the project site. Please see response to comment 2-M.

- 2-O:** This comment states that 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 Mohave ground squirrel and obtain an Incidental Take Permit (ITP) prior to initiating ground-disturbing activities. Please see response to comments 2-M and 2-N.
- 2-P:** This comment states that 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).

Please see response to comment 2-M and 2-N. Project construction and operation will comply with all applicable laws, including CESA.

- 2-Q:** This comment summarizes the status of Swainson's hawk (SWHA) nests within five miles of the project, which was disclosed in the Draft EIR and BRTR (ICF 2023). The comment provides a summary of Mitigation Measure MM 4.4-9.

To clarify, page 4.4-89 of the Draft EIR includes the following text: Construction activities would affect two Swainson's hawk nesting territories along 95th Street West, which includes three Swainson's hawk nests. Removal of trees supporting nests or physical removal of nests would be considered a significant impact. However, the proposed project would not remove the trees hosting the Swainson's nests, which include western Joshua trees and tamarisk grove; therefore, no direct impact to the nests would occur.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 2-R:** This comment states the Draft EIR notes that construction activities would impact nesting Swainson's hawk and there is a strong potential that Swainson's hawk would utilize the project site over the life of the project. CDFW therefore recommends the project obtain an ITP pursuant to Fish and Game Code section 2081 subdivision (b), to avoid the unauthorized take of Swainson's hawk.

The County has determined that the project proponent shall mitigate for the loss of SWHA nesting and foraging habitat at a ratio of 1:1. As such, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measure 4.4-10, Page 1-55 and Page 4-101**

~~MM 4.4-10: The project proponent shall mitigate for the loss of Swainson's Hawk nesting and foraging habitat at a ratio of 0.5:1 based on the total approved area of the project. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements and as determined by appropriate wildlife agency.~~

The project proponent/operator shall mitigate the loss of Swainson's Hawk foraging habitat by providing Habitat Management (HM) lands within the Antelope Valley Swainson's hawk breeding range at a minimum 1:1 ratio, based on the total approved area of the project, for foraging and nesting habitat permanently impacted. Project developers may consider delegating responsibilities for acquisition and management of the HM lands to the CDFW or a third party, such as a nongovernmental organization dedicated to Antelope Valley habitat conservation. The project proponent/operator shall seek approval of such delegation from the CDFW and the appropriate lead agency. Approaches for acquisition and management of HM lands include the following:

- a. HM Land Selection Criteria. Identify the region within which lands would be acquired, and the type/quality of habitat to be acquired. Foraging habitat should be suitable with a capacity to improve in quality and value to

Swainson's hawks and must be within the Antelope Valley Swainson's hawk breeding range. Foraging habitat with suitable nest trees is preferred.

- b. Review and Approval of HM Lands. Provide an acquisition proposal to the Department and the appropriate lead agency for their approval. The proposal should discuss the suitability of the property by comparing it to the selection criteria.
- c. Land Acquisition Schedule and Financial Assurances. Complete acquisition of proposed HM lands before initiating ground-disturbing project activities. If an irrevocable letter of credit or other form of security is provided, complete land acquisition within 12 months prior to beginning ground-disturbing project activities. Provide financial assurances for dedicating adequate funding for impact avoidance, minimization and compensation measures required for project approval.
- d. HM Lands Acquisition. Be prepared to provide a preliminary title report, initial hazardous materials survey report, biological analysis, at a minimum to the Department and the appropriate lead agency. The information will likely also be reviewed by the California Department of General Services, Fish and Game Commission and/or Wildlife Conservation Board. Fee title or conservation easement will likely be transferred to a Department of Fish and Game-approved non-profit third party and the Department, or solely to the Department. Be prepared to support enhancement and endowment funds for protection and enhancement of acquired lands. The Department will approve establishment and management of the funds, ensuring that qualified non-profit organizations or the Department will manage the funds in an appropriate manner. Contributed funds and any related interest generated from the initial capital endowment would support long-term operation, management, and protection of the approved HM lands, including reasonable administrative overhead, biological monitoring, improvements to carrying capacity, law enforcement measures, and any other action designed to protect or improve the habitat values of the HM lands. Be prepared to reimburse the Department or other entities for all land acquisition costs.

Project construction and operation will comply with all applicable laws, including CESA. If required Mitigation Measures cannot be implemented effectively to avoid take, the applicant will consult with CDFW and obtain an ITP pursuant to Fish and Game Code section 2081.

The County has determined that revised Mitigation Measure MM 4.4-10, along with Mitigation Measures MM 4.4-9 and MM 4.4-11, will ensure impacts associated with loss of SWHA foraging habitat are less than significant. This conclusion is further supported by the presence of other foraging habitat currently available near the project, as well as within the greater Antelope Valley. Based on data provided in the EIR and publicly available datasets regarding vegetation and habitat types in the Antelope Valley, approximately 18,085 acres of Swainson's hawk foraging habitat currently exist within 5-miles of the project site. That foraging habitat is primarily of moderate quality. In comparison, approximately 1,337 acres of Swainson's hawk foraging habitat are proposed for solar development as part of the proposed project, or approximately 7% of available

foraging habitat. Sufficient foraging habitat within 5 miles of the project site will therefore remain following construction of the project. In addition, permanent loss of habitat due to solar panels and project components such as BESS and substation is expected to be less than the area permitted for development, and recent evidence suggests that Swainson's hawk can use lands developed with solar energy facilities for foraging purposes under certain conditions. This may further reduce potential impacts associated with the loss of foraging habitat.

Furthermore, although the commenter references a 2010 guidance document that recommends 2:1 mitigation, neither the comments nor the referenced document explain why such a ratio is appropriate or necessary for this project. The County is also unaware of any other projects that have implemented a 2:1 ratio, including projects for which CDFW issued an ITP solely for Swainson's hawk.

As stated in Section 4.4, *Biological Resources*, of the Draft EIR, the project site provides suitable foraging habitat for Swainson's hawk. In accordance with County requirements and revision to Mitigation Measure MM 4.4-10, the project would provide 1:1 replacement for the entirety of foraging habitat permanently impacted by the project. Therefore, impacts to Swainson's hawk would remain less than significant with the implementation of Mitigation Measures MM 4.4-1, MM 4.4-2, MM 4.4-5, MM 4.4-6, MM 4.4-9, MM 4.4-10, and MM 4.4-11.

- 2-S:** This comment provides the text of Mitigation Measure MM 4.4-9 and states that CDFW does not concur with this portion of the measure, as any adjustment of a ½-mile SWHA buffer would potentially result in the unauthorized take of the species. As such, CDFW reiterates the recommendation to obtain an ITP pursuant to Fish and Game Code section 2081 subdivision (b) to avoid the unauthorized take of Swainson's hawk.

As noted above, the County and the Applicant are committed to the preservation of the Swainson's hawk nests, as demonstrated by the portion of Mitigation Measure MM 4.4-9, which states: "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." The buffer adjustment sentence will remain to allow for project flexibility and Applicant coordination with CDFW. No edits to Mitigation Measure MM 4.4-9 were made as a result of this comment. Please see response to comment 2-R.

- 2-T:** This comment provides the text of Mitigation Measure MM 4.4-10 and states that CDFW does not concur with this portion of the measure as the amount of mitigation required for impacts to Swainson's hawk 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 Swainson's hawk foraging habitat within a five-mile radius of an active Swainson's hawk nest. Please see response to comment 2-R.

- 2-U:** This comment states that CDFW recommends compensation for the loss of Swainson's hawk 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 Swainson's hawk nests occur at a minimum 2:1 ratio.

Please see response to comment 2-R, including the modifications to Mitigation Measure MM 4.4-10. No further changes to the Draft EIR are required per this comment.

- 2-V:** This comment provides the text of Mitigation Measure MM 4.4-7 and states that CDFW concurs with this portion of Mitigation Measure MM 4.4-7 but recommends that surveys follow the updated protocol, Preparing for Any Action That May Occur Within the Range of the Mojave Desert Tortoise (USFWS 2019), and that these surveys be conducted during the survey season immediately prior to construction and during the time period when desert tortoise are most active. Survey results should be submitted to both CDFW and the U.S. Fish and Wildlife Service (USFWS). If surveys indicate the presence or potential presence of desert tortoise, CDFW recommends the Project consult and obtain an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

The County acknowledges the need for early consultation for take of listed species; however, USFWS consultation is not currently anticipated as no federally-listed species were present during protocol surveys and no take of listed species is expected prior to, or during, construction and operation of the project. Mitigation Measure MM 4.4-7 identifies that if federally-listed species are detected during pre-construction surveys, then consultation with USFWS will commence. The County acknowledges that protocol surveys for desert tortoise were completed for the project in April of 2021 and were negative (Draft EIR page 4.4-66). Protocol surveys and pre-construction surveys were also completed for the adjacent Big Beau Solar Project and nearby Catalina Solar II Project, Valentine Solar Project, all of which had negative results.

In addition, the County acknowledges CDFW's observation that USFWS released updated protocols in 2019. In accordance with this request, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measure 4.4-7, Pages 1-50 through 1-52 and Pages 4-97 through 4.4-99**

**MM 4.4-7:** Within 14 days prior to the commencement of any ground-disturbing activities the project operator shall conduct preconstruction surveys for desert tortoises within the project area. The surveys shall be conducted in accordance with the U.S. Fish and Wildlife Service protocol (~~2010~~2019). If no burrows or tortoises are discovered during preconstruction surveys, no further mitigation is necessary. The desert tortoise is a federally and state threatened species and consequently, impacts that would cause "take" of the species would require the issuance of Incidental Take Permits from both the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife to comply with the Federal Endangered Species Act and California Endangered Species Act. If burrows or tortoises are identified on the project site during preconstruction surveys, the project operator shall be required to consult with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife regarding take coverage, and adhere to the following minimum conditions:

- a. Develop a plan for desert tortoise translocation and monitoring prior to project construction. The plan shall provide the framework for implementing the following measures:

1. If, upon consultation with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife, it is determined by both resource agencies that a permanent tortoise proof exclusion fence is required, a fence shall be installed around all construction and operation areas prior to the initiation of earth disturbing activities, in coordination with a qualified biologist. The fence shall be designed in such a manner to allow other wildlife to access through the permanent security fence and be constructed of 0.5-inch mesh hardware cloth and extend 18 inches above ground and 12 inches below ground. Where burial of the fence is not possible, the lower 12 inches shall be folded outward against the ground and fastened to the ground so as to prevent desert tortoise entry. The fence shall be supported sufficiently to maintain its integrity, be checked at least monthly during construction and operations, and maintained when necessary by the project operator to ensure its integrity. Provisions shall be made for closing off the fence at the point of vehicle entry. Common raven perching deterrents shall be installed as part of the fence construction.
2. An Authorized Biologist shall conduct a preconstruction survey for desert tortoise within the construction site, as well as before and after installation of desert tortoise exclusionary fencing (if required to be installed) and project security fencing. An Authorized Biologist has the appropriate education and experience to accomplish biological monitoring and mitigation tasks and is approved by the California Department of Fish and Wildlife and the U.S. Fish and Wildlife Service. Two surveys without finding any desert tortoises or new desert tortoise sign shall occur prior to declaring the site clear of desert tortoises.
3. All burrows that could provide shelter for a desert tortoise shall be hand-excavated prior to ground-disturbing activities.
4. An Authorized Biologist shall remain on site until all vegetation necessary for the construction of the project is cleared and, at a minimum, conduct site and fence inspections on a monthly basis throughout construction in order to ensure project compliance with mitigation measures.
5. An Authorized Biologist shall remain on-call throughout fencing and grading activities in the event a desert tortoise wanders onto the project site.
6. Mitigation for permanent loss of occupied desert tortoise habitat shall be mitigated at a 1:1 ratio to reduce potential effects to less-than-significant levels. Mitigation can be achieved through purchase of credit from an existing mitigation bank, such as the



Desert Tortoise Natural Area, private purchase of mitigation lands, or on-site preservation, as approved by the resource agencies.

b. A Raven Management Plan shall be developed for the project site. This plan shall include at a minimum:

1. Identification of all common raven nests within the project area during construction.
2. Weekly inspections during construction under all nests in the project area for evidence of desert tortoise predation (e.g., scutes, shells, etc.). If evidence of desert tortoise predation is noted, a report shall be submitted to the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and the Kern County Planning and Natural Resources Department within five calendar days; and
3. Provisions for the management of trash that could attract common ravens during the construction, operations and maintenance, and decommissioning phases of the proposed project.

For the same reasons set forth in the Draft EIR, implementation of revised Mitigation Measure MM 4.4-7 will ensure that no impacts to desert tortoise will occur.

**2-W:** This comment states that the Draft EIR notes that the project site is within the range of Crotch's bumble bee, suitable habitat is present, and the species has a moderate potential to occur within portions of the project site, and Mitigation Measure MM 4.4-3 is proposed to mitigate for impacts. Mitigation Measure MM 4.4-3 requires preconstruction surveys, reporting requirements, and avoidance buffers. CDFW is concerned that several portions of Mitigation Measure MM 4.4-3 would conflict with the survey guidance outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023b) document. Additionally, CDFW is concerned that the measure may not adequately mitigate impacts and avoid take.

Please see response to comment 2-X below and the augmentation to Mitigation Measure MM 4.4-3. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**2-X:** This comment provides the text of Mitigation Measure MM 4.4-3 and states that CDFW does not concur that survey procedures outlined in Mitigation Measure MM 4.4-3 would be adequate to determine presence/absence of Crotch's bumble bee within a given season.

In accordance with this request, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measures 4.4-3, Pages 1-45 & 1-46 and Pages 4-93 & 4-94**

**MM 4.4-3:** ~~Prior to any ground disturbing activities in the active season for Crotch's bumble bee (February 1 through October 31), a qualified biologist (a biologist holding an MOU for Crotch's bumble bee) should conduct a preconstruction survey within~~

~~habitats identified as having a moderate potential for Crotch's bumble bee to occur. The biologist should perform meandering transects on three separate days over a 14 day period prior to construction within the planned activity footprint. To the extent possible, surveys should be conducted between 9am and 1pm, when temperatures are between 65-90F, and when wind speeds are less than 8 miles per hour to encompass the period when bees are most active. The biologist should collect photographic vouchers of bumble bees (i.e., genus Bombus) to the extent possible through photographing the bee on floral resources, or by netting and chilling the specimens conducted by a biologist holding an MOU for the Crotch's bumble bee) and obtaining diagnostic photographs of the captured bees. During the blooming period immediately prior to construction, a qualified biologist (a biologist holding an MOU for Crotch's bumble bee) shall conduct focused surveys for CBB and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023). Survey data should be captured on the California bumble bee atlas (CBBA) data sheet or a project specific data sheet if it encompasses the same CBBA data sheet information (available at: [https://www.cabumblebeatlas.org/uploads/1/1/6/9/116937560/cabba\\_data\\_sheet\\_2023.pdf](https://www.cabumblebeatlas.org/uploads/1/1/6/9/116937560/cabba_data_sheet_2023.pdf)). Survey results should be provided to the CDFW and Kern County Planning and Natural Resources Department.~~

If a suspected or confirmed Crotch's bumble bee is detected in the project area, every effort shall be made to find the nest. If a nest is found in the project area, the biologist shall delineate a 50-foot 'no-activity' buffer around the nest until the nest senesces (becomes inactive and is no longer in use). If the species is identified within the project site and the buffer cannot be implemented effectively to avoid take, the applicant will consult with CDFW. If no suspected or confirmed Crotch's bumble bee is detected in the planned activity footprint, construction could proceed without further measures.

- 2-Y:** This comment states that CDFW recommends that a qualified biologist conduct focused surveys for Crotch's bumble bee, and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023b), during the blooming period immediately prior to construction.

Please see response to comment 2-X. No further changes to the Draft EIR are required per this comment.

- 2-Z:** This comment provides additional text of Mitigation Measure MM 4.4-3 and states that CDFW would like to note that any detection of Crotch's bumble bee prior to or during project implementation warrants consultation with CDFW to discuss how to avoid take.

Please see response to comment 2-X. No further changes to the Draft EIR are required per this comment.

- 2-AA:** This comment states that in the event a Crotch's bumble bee nest is detected within the project site, 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). Please see response to comment 2-X.

**2-BB:** This comment provides the text of Mitigation Measure MM 4.4-14 from the Draft EIR and states that CDFW concurs with this measure, but strongly recommends additional conditions. Please see response to comment A-C. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**2-CC:** This comment states that in the absence of obtaining an ITP for the take of Western Joshua Tree, CDFW recommends a minimum no-disturbance buffer for an individual Western Joshua Tree 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).

In accordance with this request, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measure 4.4-14, Pages 1-57 & 1-58 and Page 4.4-103**

**MM 4.4-14:** 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 or Western Joshua Tree Conservation Act (WJTCA) 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. The plan will include the following as applicable to the action proposed to be taken by the Applicant:

- a. Identification of an area of occupied habitat to be preserved and removed;
- b. Identification of areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;
- c. Methods for preservation, restoration, enhancement, and/or translocation;
- d. A replacement ratio and success standard as required by CESA or the WJTCA;
- e. Establishment of a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of

- compensatory mitigation sites should occur each year for the first five years of the mitigation term.
- f. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.
  - g. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;
  - h. Create adaptive management and remedial measures in the event that performance standards are not achieved; Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

Based on the results of the census performed according to CDFW Census Instructions, the Applicant shall obtain take authorization through issuance of a Western Joshua Tree Conservation Act ITP, pursuant to Fish and Game Code section 1927.3. The Applicant will pay an in-lieu fee into the Western Joshua Tree Conservation Fund according to the fee schedule identified in section 1927.3.

**2-DD:** This comment states that if a minimum 290-foot no-disturbance buffer for each identified Western Joshua Tree is not feasible, then CDFW recommends the project obtain take authorization for Western Joshua Tree 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.

As described in response to comment 2-CC, the Applicant will obtain take authorization through issuance of a Western Joshua Tree ITP, pursuant to Fish and Game Code section 1927.3. Please see response to comment 2-CC. No further changes to the Draft EIR are required per this comment.

**2-EE:** This comment provides the text of Mitigation Measure MM 4.4-6(b) from the Draft EIR. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**2-FF:** This comment states that the desert kit fox is considered a furbearing mammal, pursuant to Title 14, California Code of Regulations, Section 460, and CDFW cannot authorize the species take. CDFW states that because Mitigation Measure MM 4.4-6 has the potential to result in take of desert kit fox, it is recommended that the project proponent consult with CDFW for guidance on appropriate take avoidance measures if active desert kit fox dens are documented on the project site, and the buffers outlined in Mitigation Measure MM 4.4-6(b) are not able to be maintained.

The County understands that the CDFW cannot authorize take of desert kit fox. Project construction and operation will comply with all applicable laws and regulations.

In accordance with this request, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measure 4.4-6, Pages 1-48 through 1-50 and Pages 4.4-96 & 4.4-97**

**MM 4.4-6:** During construction and decommissioning, the Lead Biologist or approved biological monitor shall monitor all initial ground-disturbance activities and remain on-call throughout construction/decommissioning in the event a special-status species wanders into the project site.

Preconstruction surveys for special-status species shall be conducted within the project boundaries by the Lead Biologist or approved biological monitor within 14 days of the start of any vegetation clearing or grading activities. Methodology for preconstruction surveys shall be appropriate for each potentially occurring species-status species and shall follow U.S. Fish and Wildlife and/or California Department of Fish and Wildlife preconstruction survey 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 being disturbed. The Lead Biologist may use a variety of approaches (including but not limited to monitoring, track plates, and direct observation) and evidence (including burrow characteristics and presence of sign such as scat and tracks) to determine burrow activity. If any evidence of occupation of the project site special-status species is observed, a buffer shall be established by a qualified biologist that results in sufficient avoidance, as described below.

a. If desert tortoise are found on-site during subsequent surveys or biological monitoring activities, construction activities shall cease to avoid the potential for take and consultation with U.S. Fish and Wildlife Service and California Department of Fish and Wildlife shall be initiated to obtain the necessary incidental take permit authorizations or provide evidence such a permit is not required

b. Preconstruction surveys shall be conducted by a qualified biologist for the presence of American badger or desert kit fox dens within 14 days prior to commencement of construction activities. The surveys shall be conducted in areas of suitable habitat for American badger and desert kit fox, which includes desert scrub habitats. 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 prior to that portion of the project site disturbed. If potential dens are observed and avoidance is feasible, the following buffer distances shall be established prior to construction activities:

- Desert kit fox or American badger potential den: 50 feet.
- Desert kit fox or American badger active den: 100 feet.
- Desert kit fox or American badger natal den: 500 feet.

If active or potentially active dens are identified within the project site and the buffer cannot be implemented to avoid take, the Applicant will coordinate with CDFW for guidance on appropriate take avoidance measures.

~~If avoidance of the potential dens is not possible, the following measures are required to avoid potential adverse effects to the American badger and desert kit fox:~~

~~1. If the qualified biologist determines that potential dens are inactive, the biologist shall excavate these dens by hand with a shovel to prevent American badgers or desert kit foxes from re-using them during construction.~~

~~2. If the qualified biologist determines that potential dens may be active, an on-site passive relocation program shall be implemented. This program shall consist of excluding American badgers or desert kit foxes from occupied burrows by installation of one-way doors at burrow entrances, monitoring of the burrow for seven (7) days to confirm usage has been discontinued, and excavation and collapse of the burrow to prevent reoccupation. After the qualified biologist determines that American badgers or desert kit foxes have stopped using the dens within the project boundary, the dens shall be hand excavated with a shovel to prevent re-use during construction.~~

During fencing and grading activities daily monitoring reports shall be prepared by the monitoring biologists. The Lead Biologist shall prepare a summary monitoring report documenting the effectiveness and practicality of the protection measures that are in place and making recommendations for modifying the measures to enhance species protection, as needed. The report shall also provide information on the overall activities conducted related to biological resources, including the Environmental Awareness Training and Education Program, clearance/pre-activity surveys, monitoring activities, and any observed special-status species, including injuries and fatalities. These monitoring reports shall be submitted to the Kern County Planning and Natural Resources Department and relevant resource agencies, as applicable, on a monthly basis along with copies of all survey reports.

**2-GG:** This comment provides the text of Mitigation Measure MM 4.4-5(d) and states that CDFW concurs with this measure; however, recommends that all holes and trenches, whether covered or not, be inspected for trapped wildlife at the start and end of each workday by the Lead Biologist or approved biological monitor.

Mitigation Measure MM 4.4-2 requires that a Worker Environmental Awareness Program be developed. This training program will describe the worker responsibilities and requirements when holes and trenches are present, including inspections at the start and end of each day by workers, in the event a biological monitor is not available to do so. As the measure describes, a biological monitor will conduct an inspection prior to such holes or trenches being backfilled. No revisions to the Draft EIR are necessary.

**2-HH:** This comment provides the text of Mitigation Measure MM 4.4-5(l) and states that 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.

The County appreciates and understands the recommendation for a certain fencing style, however, it is necessary to provide flexibility in terms of fencing style in order to effectively balance wildlife

movement and human intrusion and trespass into the project site. The fencing must comply with all agency and regulatory requirements including the NERC Reliability Standard CIP-014-2 Requirements RF. No edits were made to Mitigation Measure MM 4.4-5(l) as a result of this comment.

**2-II:** This comment states that the project Draft EIR notes that northern California legless lizard has a moderate potential to occur within the project vicinity and the project site contains suitable habitat for the species; however, it appears no mitigation measures are proposed to mitigate for potential impacts. CDFW recommends that a qualified biologist conduct focused surveys for northern California legless lizard, and their requisite habitat features within areas of suitable habitat, immediately prior to construction to evaluate potential impacts resulting from ground-disturbance. The comment is noted. Please see response to 2-AJ and the new mitigation required.

**2-JJ:** In accordance with this request, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measures**

**MM 4.4-21:** Within 7 days of the start of ground-disturbing activities, a qualified biologist shall conduct pre-construction surveys for Northern California legless lizard (NCLL) within their requisite habitat features within areas of suitable habitat. If NCLL are detected during surveys and avoidance is possible, a 50-foot no-disturbance buffer will be implemented. If avoidance is not feasible, a qualified biologist with an appropriate permit may relocate the NCLL out of the project site into a nearby area within suitable habitat.

**2-KK:** This comment states recommends an additional mitigation measure which states 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(s) may relocate northern California legless lizard out of the project site and into a nearby area with suitable habitat.

Please see response to comment 2-JJ. No further changes to the Draft EIR are required per this comment.

**2-LL:** This comment provides the text of Mitigation Measure MM 4.4-12 from the Draft EIR and states that CDFW concurs with the portion of the measure that requires preconstruction special status plant surveys, but recommends that the surveys be conducted during the appropriate plant bloom period immediately prior to construction. Conducting surveys during the appropriate bloom period will ensure that special status plant species will have germinated and be identifiable during surveys.

As such, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measure 4.4-12, Pages 1-56 & 1-57 and Pages 4.4-102 & 4.4-103**

**MM 4.4-12:** ~~Within 14 days prior~~ Prior to the commencement of any ground-disturbing activities, the project operator shall conduct preconstruction surveys for special-status and protected plant species within the project area, including but not limited to, alkali mariposa lily and recurved larkspur. These surveys shall occur when

these species are detectable as confirmed by visits to reference populations, as outlined in the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018). After the preconstruction survey determines the exact location of these species, if present, on the project site and the number of individuals or populations present, the project proponent/operator shall submit written documentation to the Kern County Planning and Natural Resources Department confirming implementation of the measures described below. If reference populations show that these species would not be detectable during preconstruction surveys all known locations of individuals from previous surveys and from CNDDDB records, as well as moderate to high quality habitat for the alkali mariposa lily and recurved larkspur shall be avoided by a buffer of up to 50 feet, including a buffer around any seeps or springs associated with special status populations and suitable habitat, as these mesic species rely on these hydrologic features to persist.

a. The project proponent/operator shall work with a qualified biologist to determine presence of alkali mariposa lily and recurved larkspur and identify all known locations of alkali mariposa lily from previous surveys and CNDDDB records to establish “avoidance areas”. All special-status plants found within the project site shall be avoided by a buffer of ~~25~~ up to 50 feet, including a buffer around any seeps or springs associated with special status populations. Sturdy, highly visible, orange plastic construction fencing (or equivalent material verified by the authorized biologist) shall be installed around all locations of previously documented or detected special-status plants to protect from impacts during the construction phase, until they can be relocated. The fence shall be securely staked and installed in a durable manner that would be reasonably expected to withstand wind and weather events and last at least through the construction period. Fencing shall be removed upon completion of the project construction.

b. All alkali mariposa lilies and recurved larkspur that cannot feasibly be avoided in final project design shall have bulbs collected prior to construction. Additionally, a transplantation plan for alkali mariposa lily will be submitted and approved by the County prior to ground disturbance and bulb collection. The plan will include the following:

1. Identify an area of occupied habitat to be preserved and removed;
2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations;
3. Methods for preservation, restoration, enhancement, and/or translocation
4. Indicate a replacement ratio and success standard of 3:1 for impacted to individuals
5. Establish a monitoring program to ensure mitigation success
6. Create an adaptive management and remedial measures in the event that performance standards are not achieved
7. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

c. Temporary ground disturbance associated with the gen-tie lines or collector 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 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.

- 2-MM:** This comment provides additional text of Mitigation Measure MM 4.4-12(a) and states that CDFW does not concur that a 25-foot no-disturbance buffer would be sufficient to avoid take of special-status plants. Please see response to comment 2-LL.
- 2-NN:** This comment states that 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. Please see response to comment 2-LL.
- 2-OO:** The comment provides the text of Mitigation Measure MM 4.4-11 from the Draft EIR. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 2-PP:** The comment states that Mitigation Measure MM 4.4-11 is insufficient to mitigate impacts to nests during the bird breeding season, particularly for the portions of the measure that states surveys be conducted 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. See response to comment 2-AQ below for modifications to Mitigation Measure MM 4.4-11.
- 2-QQ:** The comment recommends a mitigation measure modification related to nesting bird surveys prior to construction.

The Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measure 4.4-11, Pages 1-55 & 1-56 and Pages 4.4-101 & 4.4-102**

- MM 4.4-11:** If construction is scheduled to commence during the non-nesting season (i.e., September 16 to January 31), no preconstruction surveys or additional measures are required. To avoid impacts to nesting birds in the project area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within the project site for construction activities that are initiated during the breeding season (i.e., February 1 to September 15). The raptor survey shall focus on potential nest sites (e.g., cliffs, large trees, windrows) within a 0.5-mile buffer around the project site. Surveys shall be conducted no more than 14 days prior to ~~construction activities~~ ground disturbance. Surveys need not be conducted for the entire project site at one time; they may be phased so that surveys occur shortly

before a portion of the project site is disturbed. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance. If active nests are found, a suitable buffer (e.g., ~~200-300~~ 400 feet for common raptors; 0.5 mile for Swainson's hawk; ~~30-50~~ 150 feet for passerine species) shall be established around active nests and no construction within the buffer allowed until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). Once work commences, all nests shall be monitored to detect any behavioral changes as a result of the project. For non-listed species, encroachment into the avoidance buffer may occur at the discretion of a qualified biologist based on the proposed project activity; however, for State-listed species, consultation with CDFW shall occur prior to encroachment into the aforementioned buffers.”

The project will implement Mitigation Measure 4.4-11 utilizing a qualified wildlife biologist to ensure no take, either direct or indirect, of nesting birds and raptors will occur. Biological monitors will also survey prior to and during initial ground disturbance and during the duration of construction. With the implementation of the augmented Mitigation Measure 4.4-11, no take of nesting birds will occur.

**2-RR:** The comment states that once construction begins, CDFW recommends a qualified biologist continuously monitor nests to detect behavioral changes resulting from the project. If behavioral 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.

Please see response to comment 2-QQ. For areas within CDFW jurisdiction (e.g., streambeds) that cannot be avoided, buffer sizes will follow the stipulations outlined in the Lake and Streambed Alteration Agreement permits. For the remainder of the site, appropriate buffers for non-listed species will be determined by the qualified biologist onsite.

**2-SS:** The comment states that CDFW recommends the project proponent consult with the United States Fish and Wildlife Service (USFWS) who administers the federal Endangered Species Act.

The County acknowledges the need for early consultation for take of federally-listed species; however, no USFWS consultation is anticipated as no federally-listed species were present during protocol surveys and no take of listed species is expected prior to, or during, construction and operation of the project. Mitigation Measure MM 4.4-7 identifies that if federally-listed species are detected during pre-construction surveys, then consultation with USFWS will commence.

- 2-TT:** The comment states that the project may also be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. Code, § 1600 et seq.).

The comment has been noted. A Jurisdictional Delineation was performed and included as an Appendix to the Draft EIR. The Applicant will comply with all applicable laws, including Fish and Game Code, and will obtain a Lake or Streambed Agreement (LSA) from CDFW, if required. This comment does not raise an issue related to the adequacy of the Draft EIR. No further response is necessary.

- 2-UU:** The comment states that CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement; therefore, if the Draft EIR 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 issuance.

The comment has been noted. A Jurisdictional Delineation was performed and included as an Appendix to the Draft EIR. The Applicant will comply with all applicable laws, including Fish and Game Code, and will obtain an LSA from CDFW, if required. No further response is necessary.

- 2-VV:** This comment states that the Draft EIR does not adequately evaluate cumulative impacts to specific biological resources and 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. As set forth in the CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts as well as the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the Project alone.

Appendix B-1 and B-2 of the BRTR present the potential for each relevant special-status species to occur within the project site. Project specific impacts to each special-status species are discussed in Section 4.4, *Biological Resources* of the Draft EIR. The project's cumulative impacts on biological resources are evaluated in Section 4.4 of the Draft EIR. The County determined that despite implementation of Mitigation Measures MM 4.1-4 through MM 4.1-6, MM 4.4-1 through MM 4.4-20, and MM 4.9-2 described in the Draft EIR, cumulative impacts would be significant and unavoidable to transient wildlife species. This includes burrowing owls, Swainson's hawk, other raptors, migratory birds, American badger, and desert kit fox.

As stated in Section 4.4, *Biological Resources* of the Draft EIR, the County determined that the project's contribution to maintaining artificially high common raven populations and potential to reduce local wildlife movement when combined with other related projects, would not be cumulatively considerable because impacts to special-status wildlife would be reduced and the project site and area would continue to facilitate wildlife movement within the Valley and reduce entrapment potential with implementation of mitigation such as Mitigation Measure MM 4.4-5. Sub Mitigation Measure MM 4.4-5(1) ensures security fencing, and any permanent interior fencing shall be a wildlife friendly design that meets the goals of allowing wildlife to move freely through the project site during construction, operations, and maintenance, and decommissioning.

Table 3-4 of the Draft EIR, Cumulative Project List, includes 37 related projects within 6 miles. Six projects within the 6-mile cumulative study area with similar biological resources were identified and evaluated to determine the extent of cumulative impacts on biological resources. Although the project will implement avoidance and mitigation measures to reduce impacts, the

project site contains habitat that support plants, insects, rodents, and small birds that provide a prey base for raptors and terrestrial wildlife. The project, when considered in combination with other existing and reasonably foreseeable projects, would contribute to cumulative loss of habitat for special-status species.

In response to agency comment 2-JJ, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measures**

**MM 4.4-22:** Within 3 days of the start of ground-disturbing activities, a qualified biologist shall conduct pre-construction surveys for NCLL within their requisite habitat features within areas of suitable habitat. If NCLL are detected during surveys and avoidance is possible, a 50-foot no-disturbance buffer will be implemented. If avoidance is not feasible, a qualified biologist with appropriate permit may relocate the NCLL out of the project site into a nearby area within suitable habitat.

The comment does not identify what the agency believes is necessary to perform an appropriate cumulative impact, nor does it identify any specific deficiencies with the existing analysis. The County has considered this comment and believes the discussion of cumulative impacts fully complies with CEQA.

Nevertheless, the County acknowledges there is a significant and unavoidable cumulative impact from the project and various refinements have been made to the project's mitigation measures in response to CDFW's recommendations. Those revisions will reduce project specific and cumulative impacts and no further revisions to the EIR are required.

**2-WW:** The comment notes that CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database that may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. I). Accordingly, CDFW requests that the County and Applicant report any special-status species and natural communities detected during project surveys to the California Natural Diversity Database (CNDDDB). The CNDDDB field survey form can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto: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>.

The project will be constructed and operated in full compliance with the law, including CEQA. Accordingly, a CNDDDB field survey form will be completed and submitted for all detections of special-status species recorded for the project during biological surveys.

**2-XX:** The comment notes that CDFW has determined that the project will impact fish and/or wildlife; therefore, an 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 operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.)

The County acknowledges that filing fees will be required due to project impacts on wildlife resources; the project will comply with this requirement. The filing fee will be paid if/when the project is approved upon filing the Notice of Determination.

- 2-YY:** The comment notes that CDFW appreciates the opportunity to comment on the project to assist the Kern County Planning Department in identifying and mitigating the project's impacts on biological resources.

The County thanks CDFW for their comprehensive review of the project and appreciates their recommendations to the County in thoroughly assessing the potential direct and indirect impacts on biological resources and mitigating these impacts to avoid take of protected species.

### Comment Letter 3: Caltrans, District 9 (January 18, 2024)

STATE OF CALIFORNIA—CALIFORNIA STATE TRANSPORTATION AGENCY

GAVIN 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. Janice Mayes  
Planner II Kern County Planning and Natural Resources  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301

#### Bullhead Solar DEIR

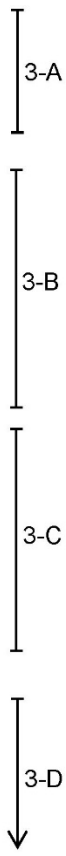
Dear Ms. Mayes:

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

- On pages 4.14-29 through 4.14-31, you state in the Cumulative Setting, Impacts, and Mitigation Measures Section, that a few solar projects were excluded from your analysis, including the Raceway Solar project, the Gem Energy Storage Project, and the Bakersfield to Palmdale Section of the California High Speed Rail Authority project.
  - We would like to see some further evaluation regarding all feasible project construction scenarios, including those mentioned but left out. Although your agency has no control over the scheduling of other projects, true, that does not exclude it from analysis.
- Transportation infrastructure facilities are very limited in this general area and the nearest intersections, Backus Road and Dawn Road, are some of the only available access roads to your project area. With limited access points to the highway, there must be consideration to mitigate any potential temporary construction impacts with facility improvements to the transportation facility, whether potential cumulative, temporary, or permanent.
  - Please provide mitigation and/or facility improvements if the construction impacts were of significance, again either cumulatively, temporary, or permanent.

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>



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

Mr. Mark Tolentino  
January 17, 2024  
Page 2

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.

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

↑  
3-D  
Con.

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

### Response to Comment Letter 3: Caltrans, District 9 (January 17, 2024)

**3-A:** The comment indicates that the comment letter is on behalf of the California Department of Transportation (Caltrans) and thanks the County for the opportunity review and provide comments on the Bullhead Solar Project.

The County acknowledges receipt of the comment letter by Caltrans and detailed responses to each substantive comment are provided below.

**3-B:** This comment states that the Draft EIR excluded the Raceway project, the Gem Energy Storage Project, and the Bakersfield to Palmdale Section of the California High Speed Rail Authority Project from the cumulative analysis on pages 4.14-29 through 4.14-31 of the Draft EIR. Caltrans wishes to see further evaluation featuring all feasible project construction scenarios, including those mentioned but excluded in the analysis.

As set forth in the CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts as well as the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. Project specific and cumulative impacts to transportation and traffic are evaluated in Section 4.14, *Transportation*, of the Draft EIR. The County determined that project specific impacts to transportation and traffic would be less than significant with incorporation of Mitigation Measure MM 4.14-1 which requires the project proponent/operator to prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department-Development Review and Caltrans offices for District 6 & 9, as appropriate, for approval prior to the issuance of construction or building permits for the facility. Mitigation Measure MM 4.14-1 requires that the Construction Traffic Control Plan be prepared in accordance with both the Caltrans Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook.

Table 3-4 of the Draft EIR, Cumulative Project List, includes 37 related projects within 6 miles. As stated in Section 4.14 of the Draft EIR, trip generation for the cumulative analysis was completed for four of the six projects on the cumulative project list. These four cumulative projects were included due to their proximity to the project and the use of the study area intersections. The finalized trip generation traffic was then distributed over the five project intersections. Based on the locations and types of projects provided in the cumulative list, resultant peak-hour turning movement volumes were added to the 2026 volumes to account for these cumulative impacts.

The Raceway Solar, Gem Energy Storage and Bakersfield to Palmdale Section of the California High Speed Rail Authority were excluded from the cumulative analysis as the estimated date of completion does not overlap with the construction of the project or because these projects are in the planning and permitting phases and have not started construction. The County determined that with implementation of Mitigation Measure MM 4.14-1, the project would result in less than significant cumulative impacts on transportation and traffic. The comment states that further evaluation is desired but does not identify any deficiencies or indicate that the current analysis is insufficient.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.



- 3-C:** This comment states that transportation infrastructure facilities in the project area are very limited and indicates that Backus Road and Dawn Road are some of the only access roads available to the project. The comment states that due to limited access to the highway, there must be considerations to mitigate potential project specific and cumulative temporary or permanent impacts.

The Draft EIR evaluated access to the project site from one primary and one secondary route, please see Chapter 1, *Executive Summary*, of the Draft EIR, page 1-15 for the routes identified for the Bullhead Solar Project.

See response to comment 5-B, above. The County determined that project specific and cumulative impacts to transportation and traffic would be less than significant with incorporation of Mitigation Measure MM 4.14-1. This mitigation measure requires the project proponent/operator to prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department-Development Review and Caltrans offices for District 6 and 9, as appropriate, for approval prior to the issuance of construction or building permits for the facility. Mitigation Measure MM 4.14-1 also requires that the Construction Traffic Control Plan must be prepared in accordance with both the Caltrans Manual on Uniform Traffic Control Devices and the Work Area Traffic Control Handbook.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 3-D:** This comment provides links to the Caltrans Highway Design Manual and Encroachment Permit Manual and indicates Caltrans staff are available to address questions.

The County thanks Caltrans for their review of the project and their recommendations to the County in assessing environmental impacts.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

### 7.3.2 Local Agencies

#### Comment Letter 4: Kern County Public Works Department – Building and Development – Survey (December 4, 2023)



December 4, 2023

To: Lorelei Oviatt, Director  
Planning and Natural Resources Department  
Janice Mayes, Planner III

From: Jeremy M. Brock, County Surveyor *JMB*  
By: Andres Arias, Engineering Support Supervisor

Phone: 28959

Subject: Draft of an Environmental Impact Report for the Bullhead Solar Project by EDF Renewables LLC (PP22404).

I have reviewed the above noted project Draft of EIR and recommend the following conditions be placed on the Conditional Use Permits:

1. Prior to issuance of a building or grading permit: All survey monuments shall be tied out by a Licensed Land Surveyor. A corner record for each monument or record of survey shall be submitted to the County Surveyor for review and processing, per Section 8771 of the Professional Land Surveyor's (PLS) Act.
2. Prior to Final Inspection: All survey monuments that were destroyed during construction shall be re-set or have a suitable witness corner set. A post construction corner record for each monument re-set or a record of survey shall be submitted to the County Surveyor for processing, per Section 8771 of the Professional Land Surveyor's Act.
3. Upon completion of project: All survey monuments shall be accessible by a Licensed Land Surveyor or their representatives, with prior notice, per Section 8774 of the PLS Act and Civil Code 846.5 (a).

4-A

Thank you for the opportunity to review and comment on this project. Should you have any questions please contact me.



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## *Office Memorandum - Kern County*

**TO:** [Distribution List] PLEASE SIGN AND DATE BELOW AS SOON AS RECEIVED AND RETURN TO PLANNING AND NATURAL RESOURCES DEPARTMENT BY: January 15, 2024.

**FROM:** Lorelei H. Oviatt, AICP, DIRECTOR                      **DATE:** November 30, 2023  
 Planning & Natural Resources Department

By: Janice Mayes, Planner III (661) 862-8793

**SUBJECT:** **Draft Environmental Impact Report** for the Bullhead Solar Project by EDF Renewables LLC (PP22404)

Enclosed is a document entitled Draft Environmental Impact Report for the **Bullhead Solar Project**. The Kern County Planning & Natural Resources Department as Lead Agency (per CEQA Guidelines Section 15050) solicits the views of your agency as to the scope and content of the environmental information, which is germane to your agency’s statutory responsibilities in connection with the proposed project.

In order to verify that this document was received by your department, please date and sign this memo and return by office mail to the Planning and Natural Resources Department, Attn: Janice Mayes. Thank you in advance for your cooperation.

**Distribution List (Kern County):**

- Administrative Office
- PWD- Building & Development – Floodplain
- PWD- Building & Development – Survey
- Environmental Health Services
- East Kern Air Pollution Control District
- Fire Department, Fire Chief – Aaron Duncan
- Fire Department, Fire Marshall – Michael Nicholas
- Library/Beale – Local History Room
- Library Director – Andie Sullivan
- Rosamond Library
- Parks and Recreation
- Sheriff’s Department - Administration
- PWD- Building & Development- Development Review
- PWD- Operations & Maintenance- Regulatory Monitoring & Reporting
- PWD- Code Compliance

RECEIVED: 12.1.2023 By:  Dept.: Public Works - County Surveyor's Office

**Response to Comment Letter 4: Kern County Public Works Department – Building and Development – Survey (December 4, 2023)**

**4-A:** This comment is from the Kern County Public Works Department – Building and Development - Survey. The commentor recommends three conditions related to the treatment of survey monuments be placed on the Conditional Use Permit for the Bullhead Solar Project as stated in the comment letter. Each one of these conditions is a standard requirement for Conditional Use Permits. The applicant acknowledges that other permits not listed in the Draft EIR may be required, as stated on page 3-40 of the Draft EIR. As such, 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 necessary.

# Comment Letter 5: Kern County Public Works, Development Review Section; Floodplain Management Section; Sewer and Water Section; and CSA Section (December 7, 2023)



## Office Memorandum

To: Lorelei Oviatt, Director  
Planning and Natural Resources Department  
Attn: Janice Mayes, Planner III December 7, 2023

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

Subject: 7-8.3.b Draft Supplemental Environmental Impact Report for Bullhead Solar Project by EDF Renewables, LLC (PP22404) (Located on Dawn Road between 105<sup>th</sup> Street West and 75<sup>th</sup> Street West)

### Development Review Section

This Section has reviewed the subject project and has no comment. 5-A

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: 5-B

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

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.

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. 5-C

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.



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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 Stephen Chavira of this Section at (661) 862-5115.

5-D

## **Response to Comment Letter 5: Kern County Public Works, Development Review Section; Floodplain Management Section; Sewer and Water Section; and CSA Section (December 7, 2023)**

**5-A:** This comment is from the Kern County Public Works Department – Development Review Section. The comment states that they have reviewed the project and have no comment. No changes or modifications have been made to the Draft EIR in response to this comment.

**5-B:** This comment is from the Kern County Public Works Department – Floodplain Management Section notes the increased runoff at the project site due to an increase in impervious surfaces. The commentator recommends an additional Condition of Approval which consists of the project proponent providing a plan for approval to the Kern County Public Works Department for how drainage waters originating on site and from adjacent road right-of-ways will be disposed of, per the Kern County Development Standards.

The project would be subject to the Kern County Code of Building Regulations, the Kern County Floodplain Management Ordinance, and the Kern County Development Standards, as noted on pages 4.10-18 and 4.10-19 of the Draft EIR. Approval of these permits will be required by the Kern County Public Works Department. In addition, the project would also implement Mitigation Measures MM 4.10-1 and MM 4.10-2. Mitigation Measure MM 4.10-1 would require the implementation of an approved SWPPP while Mitigation Measure MM 4.10-2 would require the approval of a final drainage plan. Both mitigation measures describe how the project proponent should control runoff originating from the project site to minimize erosion. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**5-C:** This comment is from the Kern County Public Works Department – Sewer and Water Section. The comment states that they have reviewed the project and have no comment. No changes or modifications have been made to the Draft EIR in response to this comment.

**5-D:** This comment is from the Kern County Public Works Department – CAS Section. The comment states that they have reviewed the project and have no comment. No changes or modifications have been made to the Draft EIR in response to this comment.



### Comment Letter 6: Kern County Superintendent of Schools (December 22, 2023)



December 22, 2023

Kern County Planning Department  
 Attn: Janis Mayes, Planner III  
 2700 M Street, Suite 100  
 Bakersfield, CA 93301

**Our File No.:** CO23-0123

**RE: DEVELOPER FEES FOR:** Notice of Preparation, Draft EIR for the Bullhead Solar Project;  
 Map No. 214-31, 32, 33, 231-5 & 6, 232-1  
 (Generally along Dawn Rd off of Sierra Hwy between 105<sup>th</sup> Street West and 75<sup>th</sup> Street West, north of Favorito Ave and south of Champagne Ave.)

Dear Ms. Mayes,

This office represents the Southern Kern Unified School District with regard to the imposition of school facility fees, and appreciates the opportunity to respond on behalf of the district regarding the proposed project. This letter is limited to addressing the possible effects which the project might have on school facilities created by students attributable to the project. It is not intended to address other possible environmental concerns which might be identified by the district(s) after reviewing it. 6-A

It is our determination that the above-mentioned project regarding Bullhead Solar Project, allowing the construction and operation of a solar facility and associated infrastructure, including telecommunication towers and internal roads within the 25-acres of the project site will have no significant effects on either of these district's facilities and mitigation of this project's impacts on public school facilities may be limited to the collection of statutory fees authorized under Education Code Section 17620 and Government Code Sections 65995 et seq. (all as amended with an operative date of November 4, 1998) at the time that building permits are issued. Currently, this fee is set at \$0.78 per square foot of new commercial/industrial construction, an amount subject to COLA adjustment every two years. 6-B

Thank you for the opportunity to comment on the project. Should you have any questions, or if we can be of any further assistance in this matter, please contact me at 636-4599, or through e-mail at [anwatson@kern.org](mailto:anwatson@kern.org).

Sincerely,

Andrea Watson, Specialist  
 School District Facility Services

**RECEIVED**  
 JAN 02 2024  
 Kern County Planning &  
 Natural Resources Dept.

Cc: Districts



**Response to Comment Letter 6: Kern County Superintendent of Schools (December 22, 2023)**

- 6-A:** The commenter expresses appreciation for the opportunity to respond on behalf of the district regarding the proposed project. This comment clarifies that the letter's contents are intended to address possible effects which the project may have on school facilities, and not to comment on any other environmental concerns.
- 6-B:** The commenter provides a brief overview of the entitlements being requested by the project and concludes that no significant effect on the district's facilities would occur with project implementation, given the appropriate fees and regulations are complied with. According to Section 4.13, *Public Services*, of the Draft EIR, page 4.13-14, "On-site workforce is expected to average 201 workers per day with a peak of up to 627 workers." These onsite construction workers would be temporary with the project expected to last approximately 18 months and starting in 2024. Accordingly, page 4.13-17 states, "Construction workers would likely come from an existing local and/or regional construction labor force and would not likely relocate their households as a consequence of working on the proposed project." Additionally, the approximately up to 15 part-time and/or full-time staff for the operation phase would likely come from the existing local population and would not likely relocate to the area. In other words, the project is unlikely to result in an increase in school-aged children and increase the number of students using the local schools. Therefore, impacts would be less than significant. All fees applicable to implementation of the project will be collected when the project proponent/operator applies for required building permits. 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 necessary.

### 7.3.3 Interested Parties

#### Comment Letter 7: Rahim Karim (December 15, 2023)

To  
 Kern County  
 Planning Department  
 2700 M. Street suite 100  
 Bakersfield CA. 93301

Rahim Karim  
 6358 point Isabel Way  
 Las Vegas, NV 89122

RECEIVED  
 JAN 02 2024  
 Kern County Planning &  
 Natural Resources Dept.

Dear Ladies and gentlemen! 12.15.2023

I have received your letter with a copy of map for Bullhead Solar project.

If I say the truth I couldn't understand too much from this letter.

In order to know in this regard more I send this letter and kindly request you to answer my following question:

- 1. This solar project belongs to the government or is a private company? 7-B
- 2. I have in Kern County 3 parcel lands 346-240-33-35 and 36 each 40 acres. 7-C
- 3. How is the regulation arranged about the payment. This is on basis of lease or the government intends to buy the lands from owners. 7-D
- 4. Do you need for this project all 3 parcel of my land or only one parcel No. 346-240-36 that you have mentioned on the attached green card. 7-E
- 5. Due to the long way and my health problem I am not able to participate in your meeting which has been determined on 8 of February 2024. What is your advise? 7-F
- 6. I thank you for your cooperation in this regard. 7-G

123

and would be very happy if you use your kindness  
and answer my all question on time.

↑ 7-G  
(Con.)

Sincerely  
G. Robinson

**Response to Comment Letter 7: Rahim Karim (December 15, 2023)**

**7-A:** The commentor acknowledges and thanks the Kern County Planning and Natural Resources Department for receipt of the Draft EIR Cover Letter for the Bullhead Solar Project which was mailed November 30, 2023. The commentor continues to state that in order to fully understand the letter, they have asked the Kern County Planning and Natural Resources Department to respond to his questions in this comment letter.

Subsequent to this letter, the commentor contacted Kern County Planning Department staff via phone. The commentor's questions focused on land ownership and were not related to the content of the Draft EIR, and all questions were answered by County staff via phone.

**7-B:** The commentor asks if the Bullhead Solar Project belongs to the government or to a private company. The applicant and owner of the property in question is EDF Renewables, LLC. No parts of the project site are owned by a federal, state, or local governmental agency. Page 1-1 of Chapter 1, *Executive Summary*, in the Draft EIR, it states that, "The Bullhead Solar Project (proposed project), proposed by EDF Renewables LLC (project proponent/operator), would construct and operate a photovoltaic (PV) solar facility and associated infrastructure to generate up to 270 megawatts (MW) of renewable electrical energy, with a Battery Energy Storage System (BESS) capable of storing approximately 270 MW, or 1,080 megawatt-hours (MWh) of energy, on an approximately 1,343-acre privately owned site." As stated in the quote, the property where the Bullhead Solar Project would be located is privately owned and is not owned by the government. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**7-C:** This comment is a statement of which parcels the commentor owns and does not ask any questions or raise any issues with the Draft EIR. The three parcels (Assessor Parcel Numbers (APN) 346-240-33, 346-240-35, and 346-240-36) are not a part of the project site. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**7-D:** The comment questions whether the government intends to lease or buy the properties of the surrounding landowners in relation to the Bullhead Solar Project. The parcels included in the Bullhead Solar Project do not include the parcels owned by the commentor. As seen on pages 1-3 and 1-4 of the *Executive Summary* in the Draft EIR, there is a list of APNs where the project will occur and none of the commentor's parcels are on this list. This comment does not raise any issues or ask any questions related to the Draft EIR. Therefore, the comment has been noted for the record and revisions to the Draft EIR are not necessary.

**7-E:** This comment questions whether or not the commentor's parcels are needed for the Bullhead Solar Project. As stated in the comment letter, the commentor owns three separate parcels which are APN 346-240-33, 346-240-35, and 346-240-36. Two of the three parcels are adjacent to the Bullhead Solar Project site, specifically, APNs 346-240-36 and 346-240-35. As seen on pages 1-3 and 1-4 of the *Executive Summary* in the Draft EIR, there is a list of APNs where the project will occur and none of the commentor's parcels are on this list. This comment does not raise any issues or ask any questions related to the Draft EIR. Therefore, the comment has been noted for the record and revisions to the Draft EIR are not necessary.

- 7-F:** The commentor states that they are unable to participate in the February 8, 2024, meeting, and asks the County to advise them on the best way to participate in the meeting. All Kern County Planning Commission meeting minutes , as well as hearing videos, are posted on the County’s website, can be accessed at the following location: <https://kernplanning.com/hearings/planning-commission/agenda-minutes-video/>. County staff discussed and resolved all questions with the commentor via phone.
- 7-G:** The commentor thanks the County for their cooperation in answering their questions. As noted, the commentor did call the Staff at the Kern County Planning and Natural Resources Department to the questions raised in this comment letter where their questions were answered. The commentor, in the letter and the phone call, did not raise any issues or ask any questions related to the Draft EIR. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

### Comment Letter 8: Merlyn R. Neilson (January 11, 2023)

**CAUTION:** This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Attention: Janice Mayes  
Planner III

Thank you for returning my phone call and for the Notice of Availability for Public Review and Hearing on the Draft Environmental Impact Report For the Proposed Chalan Solar and Storage Project.

I am in favor of the proposed project with request that my 10 acres vacant land, subject of this email, be considered for inclusion to the proposed Chalan and Storage Project.

The inclusion of my 10 acres vacant land which is suitable for Battery Storage would enhance the proposed Chalan and Storage Project as it would increase the amount of additional energy that would be produced.

In 2023, I have received some declaration of interest from interested Project Developers of Community Solar to purchase my 10 acres. However, confronting them was the connectivity to the grid which was their challenge and therefore they would only proceed with purchasing my land if the connectivity to the grid can be accessed thru a reasonable cost.

As you know, Big Beau Solar have the grid and they are and the Chalan and Storage Project are the better Developer/Buyers/Users for my 10 acres.

I am very concerned about the potential negative impact on my 10 acres vacant land location resulting from it not to be considered for inclusion by the current Project Developers

Through your kind cooperation, please share my concerns as my testimony by reading this email addressed to you at the scheduled public hearing on January 15, 2024 at 5:00 p.m.

Thank you.

Sincerely yours,

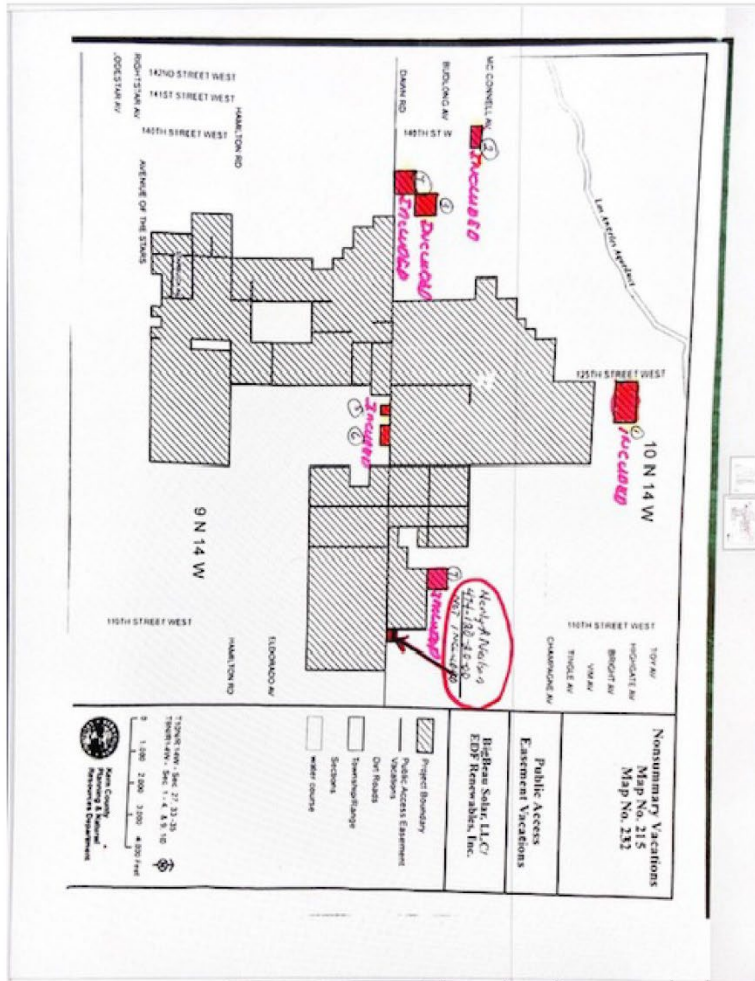
Merlyn R. Neilson  
Landowner  
(310) 808-7539

att: Parcel Map

8-A

8-B

8-C



**Response to Comment Letter 8: Merlyn R. Neilson (January 11, 2023)**

- 8-A:** Throughout the entire comment letter, the commentor refers to the project as the Chalan and Storage Project. It should be noted that the applicant is referring to the Bullhead Solar Project, the subject of this Draft EIR. The commentor also thanks the Kern County Planning and Natural Resources Department for returning their phone call and states that they support the project, if their 10-acre property is included. Land ownership of the project site is outside the responsibility of the County. This comment does not 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 necessary.
- 8-B:** This comment is regarding the commentor's concern over potential negative impacts on their property. The project site described in the Draft EIR does not include the commentor's property; however, the property can still be developed according to the requirements found in the Kern County General Plan and the Kern County Zoning Code, along with any regulations and rules that may apply. As stated in CEQA Guidelines Section 15064(e), economic and social changes resulting from a project shall not be treated as significant effects on the environment. 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 necessary.
- 8-C:** The commentor thanks the Kern County Planning and Natural Resources Department for their cooperation and asks that their letter be read at the Kern County Planning Commission Meeting. It should be noted that the correct date for the Kern County Planning Commission Hearing is February 22, 2024. The Kern County Planning Commission reviews all letters and comments, during the course of their consideration of the Bullhead Solar Project. 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 necessary.



# Comment Letter 9: Western States Regional Council of Carpenters (January 11, 2024)

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 11, 2024

Janice Mayers  
Kern County  
2700 M. St., Ste. 100  
Bakersfield, CA 93301  
Em: [mayersj@kerncounty.com](mailto:mayersj@kerncounty.com)

**RE: Bullhead Solar Project Draft Environmental Impact Report**

Dear Ms. Mayers 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 Bullhead 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-

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January 11, 2024  
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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).

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**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:

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[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.<sup>1</sup>

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.<sup>2</sup>

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.<sup>3</sup>

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.<sup>4</sup> Some municipalities have even tied local hire and

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<sup>1</sup> 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>.

<sup>2</sup> 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>.

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

<sup>4</sup> 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.

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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**

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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.<sup>5</sup>

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

<sup>5</sup> 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.

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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.

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**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.<sup>6</sup>

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.

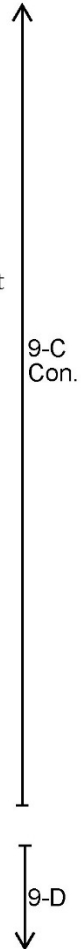
The Western Carpenters has also developed a rigorous Infection Control Risk Assessment (“ICRA”) training program to ensure it delivers a workforce that understands how to identify and control infection risks by implementing protocols to protect themselves and all others during renovation and construction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

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



<sup>6</sup> 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](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](https://dpw.lacounty.gov/building-and-safety/docs/pw_guidelines-construction-sites.pdf).

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

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Regulations (“**CEQA Guidelines**”) § 15002(a)(1).<sup>8</sup> 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

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<sup>8</sup> 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.

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A. The DEIR Fails to Adequately Mitigate The Project 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” and that any unavoidable significant effects on the environment are “acceptable due to overriding concerns”. CEQA Guidelines § 15092(b)(2)(A–B).

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.

Lastly, mitigation measures may not be vague or illusory; they must be specific, feasible and fully enforceable. PRC §§21081.6(b) (“fully enforceable”), 21157.5(a)(2) (“feasible” MMs must be incorporated in an MND); Guidelines §§15126.4(a)(1)-(2) (MMs must be “feasible,” “fully enforceable”). “Feasible’ means capable of being accomplished in a successful manner within a reasonable period of time...” PRC §21061.1.

Here, the DEIR finds that significant and unavoidable biological resource impacts. DEIR at 1-19. Thus, to mitigate such impacts, the DEIR implements various

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mitigation measures. DEIR at 4.4-93 – 4.4-103. However, the measures fail to adequately mitigate the impacts for several reasons.

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First, 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 dated December 22, 2022 regarding the Project, 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.”<sup>9</sup> 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.<sup>10</sup> The DEIR must be revised to consider these measures or explain in depth why such measures are infeasible or unnecessary.

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Second, although the DEIR’s mitigation measure 4.4-10 provides that the Project proponent “shall mitigate for the loss of Swainson’s Hawk nesting and foraging habitat at a ratio of 0.5:1 based on the total approved area of the [P]roject”, it fails to specify what type of mitigation this entails nor what “the necessary biological requirements . . . as determined by appropriate wildlife agency” constitute of. The DEIR must also be revised to provide such specifications in order for the measure to not be improperly deferred.

9-G

B. 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

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<sup>9</sup> December 22, 2022 CDFW Letter at 12, available at [https://files.ceqanet.opr.ca.gov/283328-1/attachment/zXCIEWQBNCvWyyq7tqTz6v4nET6JzsAd20BVAVT3qgTj-s9m2bMEOoWkA\\_CstbsZ9V4ZA\\_8CLP6wajUk0](https://files.ceqanet.opr.ca.gov/283328-1/attachment/zXCIEWQBNCvWyyq7tqTz6v4nET6JzsAd20BVAVT3qgTj-s9m2bMEOoWkA_CstbsZ9V4ZA_8CLP6wajUk0).

<sup>10</sup> *Id.*

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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.

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 4.10-24 – 4.10-25. However, both measures are improperly deferred.

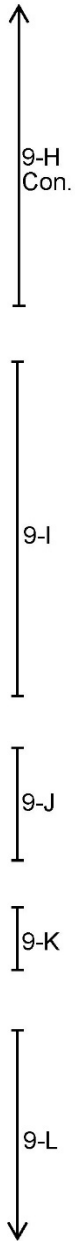
MM 4.10-1 requires preparation and submission of a Stormwater Pollution Prevention Plan (“SWPPP”) prior to the issuance of a grading permit. In addition to failing to explain why such preparation and submission is not feasible at this time, the DEIR also fails to provide necessary specifications about 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.

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.

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.

C. 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.



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App. 4th 1; *Ebbetts Pass Forest Watch v Department of Forestry & Fire Protection* (2008) 43 Cal. App. 4th 936, 956.

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Here, although batteries associated with solar facilities may be considered hazardous waste in California when they are discarded, the DEIR fails to analyze such factor and impact. Rather, the DEIR asserts that “most panel materials would be recycled, with minimal disposal to occur in landfills in compliance with all applicable laws.” DEIR at 4.9-23.

Absent any Project-specific analysis of the impacts associated with the Project’s batteries and their disposal, there is not substantial evidence supporting the DEIR’s less than significant hazardous waste findings. 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.

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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; *Lesber Communications, Inc. v. City of Walnut Creek* (1990) 52 Cal.3d 531, 540.

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 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 Lesber*, 52 Cal.3d at 544.

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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

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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.

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 4.11-34, *et seq.* However, rather than analyzing the consistency of each such departure in its land use analysis, the DEIR merely provides that with approval of the amendments and zone changes, the proposed project would be consistent with all applicable land use policies and regulations.” DEIR at 4.11-35; 4.11-43.

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

Sincerely,



Talia Nimmer  
Attorneys for Western States  
Regional Council of Carpenters

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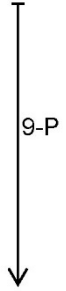
Kern County – Bullhead Solar Project  
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Attached:

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);

Air Quality and GHG Expert Matt Hagemann CV (Exhibit C)



**EXHIBIT A**



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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.”<sup>1</sup> 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.<sup>2</sup>

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.<sup>3</sup>

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

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

<sup>3</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 34.

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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.<sup>4</sup>

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

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

Where:

n = Number of land uses being modeled.”<sup>5</sup>

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

$$\text{“Emissions}_{\text{pollutant}} = \text{VMT} * \text{EF}_{\text{running,pollutant}}$$

Where:

Emissions<sub>pollutant</sub> = emissions from vehicle running for each pollutant

VMT = vehicle miles traveled

EF<sub>running,pollutant</sub> = emission factor for running emissions.”<sup>6</sup>

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.<sup>7</sup> 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.<sup>8</sup> The default number of construction-related worker trips is calculated by multiplying the

<sup>4</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 14-15.

<sup>5</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 23.

<sup>6</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 15.

<sup>7</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 34.

<sup>8</sup> 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.<sup>9</sup> 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.<sup>10</sup> Finally, the default worker trip length is consistent with the length of the operational home-to-work vehicle trips.<sup>11</sup> 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).<sup>12</sup>

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).<sup>13</sup>

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
<b>Average</b>	<b>16.47</b>	<b>11.17</b>
<b>Minimum</b>	<b>10.80</b>	<b>10.80</b>
<b>Maximum</b>	<b>19.80</b>	<b>14.70</b>
<b>Range</b>	<b>9.00</b>	<b>3.90</b>

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<sup>9</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4), p. 34.

<sup>10</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 15.

<sup>11</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 14.

<sup>12</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6), p. 21.

<sup>13</sup> “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](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.<sup>14</sup> 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	
<b>Without Local Hire Provision</b>	
Total Construction GHG Emissions (MT CO <sub>2</sub> e)	3,623
Amortized Construction GHG Emissions (MT CO <sub>2</sub> e/year)	120.77
<b>With Local Hire Provision</b>	
Total Construction GHG Emissions (MT CO <sub>2</sub> e)	3,024
Amortized Construction GHG Emissions (MT CO <sub>2</sub> e/year)	100.80
<b>% Decrease in Construction-related GHG Emissions</b>	<b>17%</b>

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.

<sup>14</sup> “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](http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4), p. D-85.

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**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.

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Sincerely,



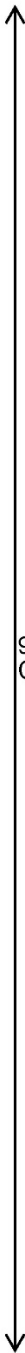
Matt Hagemann, P.G., C.Hg.




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



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Air District	San Diego	16.8	10.8	 <p>9-P Con.</p>
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



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<b>Worker Trip Length by Air Basin</b>		
<b>Air Basin</b>	<b>Rural (miles)</b>	<b>Urban (miles)</b>
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
<b>Average</b>	<b>16.47</b>	<b>11.17</b>
<b>Mininum</b>	<b>10.80</b>	<b>10.80</b>
<b>Maximum</b>	<b>19.80</b>	<b>14.70</b>
<b>Range</b>	<b>9.00</b>	<b>3.90</b>

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Attachment B

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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	72,600.00	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	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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
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	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27



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

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.84
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated 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	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1969	213.1969	0.0601	0.0000	214.6993
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187
2023	0.6148	3.3649	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5295	1,627.5295	0.1185	0.0000	1,630.4925
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9078	52.9078	8.0200e-003	0.0000	53.1082
Maximum	4.1619	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6826	1,721.6826	0.1294	0.0000	1,724.9187

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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	0.4169	0.0817	0.4986	0.1795	0.0754	0.2549	0.0000	213.1967	213.1967	0.0601	0.0000	214.6991
2022	0.6904	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183
2023	0.6148	3.3848	5.6747	0.0178	1.1963	0.0996	1.2959	0.3203	0.0935	0.4138	0.0000	1,627.5291	1,627.5291	0.1185	0.0000	1,630.4921
2024	4.1619	0.1335	0.2810	5.9000e-004	0.0325	6.4700e-003	0.0390	8.6300e-003	6.0400e-003	0.0147	0.0000	52.9077	52.9077	8.0200e-003	0.0000	53.1082
Maximum	4.1619	4.1142	6.1625	0.0189	1.3058	0.1201	1.4259	0.3460	0.1128	0.4588	0.0000	1,721.6823	1,721.6823	0.1294	0.0000	1,724.9183

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

9	9-1-2023	11-30-2023	1.0265	1.0265
10	12-1-2023	2-28-2024	2.8857	2.8857
11	3-1-2024	5-31-2024	1.6207	1.6207
		Highest	2.8857	2.8857

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	N2O	CO2e
Category	tons/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	222.5835
Energy	0.1398	1.2312	0.7770	7.5200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2633
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
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	556.6420	585.8052	3.0183	0.0755	683.7967
<b>Total</b>	<b>6.8692</b>	<b>9.5223</b>	<b>30.3407</b>	<b>0.0914</b>	<b>7.7979</b>	<b>0.2260</b>	<b>8.0240</b>	<b>2.0895</b>	<b>0.2219</b>	<b>2.3114</b>	<b>236.9712</b>	<b>12,294.1807</b>	<b>12,631.1519</b>	<b>15.7904</b>	<b>0.1260</b>	<b>12,963.4751</b>

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

2.2 Overall Operational

Mitigated 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	N2O	CO2e
Category	tons/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	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
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	556.6420	585.8052	3.0183	0.0755	683.7567
<b>Total</b>	<b>6.8692</b>	<b>9.5223</b>	<b>30.3407</b>	<b>0.0914</b>	<b>7.7979</b>	<b>0.2260</b>	<b>8.0240</b>	<b>2.0895</b>	<b>0.2219</b>	<b>2.3114</b>	<b>236.9712</b>	<b>12,294.1807</b>	<b>12,531.1519</b>	<b>15.7904</b>	<b>0.1260</b>	<b>12,963.4751</b>
<b>Percent Reduction</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

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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	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	11/11/2022	5	45	
4	Building Construction	Building Construction	11/12/2022	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	

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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	48	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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**Trips and VMT**

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

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
	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	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
<b>Total</b>	<b>0.0475</b>	<b>0.4716</b>	<b>0.3235</b>	<b>5.8000e-004</b>	<b>0.0496</b>	<b>0.0233</b>	<b>0.0729</b>	<b>7.5100e-003</b>	<b>0.0216</b>	<b>0.0291</b>	<b>0.0000</b>	<b>51.0012</b>	<b>51.0012</b>	<b>0.0144</b>	<b>0.0000</b>	<b>51.3601</b>

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

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	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	9.7000e-004	7.5000e-004	8.5100e-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	2.2267
<b>Total</b>	<b>2.9000e-003</b>	<b>0.0641</b>	<b>0.0233</b>	<b>2.0000e-004</b>	<b>6.4100e-003</b>	<b>2.1000e-004</b>	<b>6.6200e-003</b>	<b>1.7300e-003</b>	<b>2.0000e-004</b>	<b>1.9300e-003</b>	<b>0.0000</b>	<b>19.6816</b>	<b>19.6816</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>19.7136</b>

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					0.0496	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	51.3600
<b>Total</b>	<b>0.0475</b>	<b>0.4716</b>	<b>0.3235</b>	<b>5.8000e-004</b>	<b>0.0496</b>	<b>0.0233</b>	<b>0.0729</b>	<b>7.5100e-003</b>	<b>0.0216</b>	<b>0.0291</b>	<b>0.0000</b>	<b>51.0011</b>	<b>51.0011</b>	<b>0.0144</b>	<b>0.0000</b>	<b>51.3600</b>

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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	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	9.7000e-004	7.5000e-004	8.5100e-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	2.2267
<b>Total</b>	<b>2.9000e-003</b>	<b>0.0641</b>	<b>0.0233</b>	<b>2.0000e-004</b>	<b>6.4100e-003</b>	<b>2.1000e-004</b>	<b>6.6200e-003</b>	<b>1.7300e-003</b>	<b>2.0000e-004</b>	<b>1.9300e-003</b>	<b>0.0000</b>	<b>19.6816</b>	<b>19.6816</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>19.7136</b>

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	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	33.7061
<b>Total</b>	<b>0.0389</b>	<b>0.4050</b>	<b>0.2115</b>	<b>3.8000e-004</b>	<b>0.1807</b>	<b>0.0204</b>	<b>0.2011</b>	<b>0.0993</b>	<b>0.0188</b>	<b>0.1181</b>	<b>0.0000</b>	<b>33.4357</b>	<b>33.4357</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.7061</b>

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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	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	6.0000e-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
<b>Total</b>	<b>7.7000e-004</b>	<b>6.0000e-004</b>	<b>6.8100e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>2.0000e-005</b>	<b>1.9900e-003</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.7801</b>	<b>1.7801</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7814</b>

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					0.1807	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	0.0204	0.0188	0.0188	0.0188	0.0000	33.4357	33.4357	0.0108	0.0000	33.7060
<b>Total</b>	<b>0.0389</b>	<b>0.4050</b>	<b>0.2115</b>	<b>3.8000e-004</b>	<b>0.1807</b>	<b>0.0204</b>	<b>0.2011</b>	<b>0.0993</b>	<b>0.0188</b>	<b>0.1181</b>	<b>0.0000</b>	<b>33.4357</b>	<b>33.4357</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.7060</b>

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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	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	6.0000e-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
<b>Total</b>	<b>7.7000e-004</b>	<b>6.0000e-004</b>	<b>6.8100e-003</b>	<b>2.0000e-005</b>	<b>1.9700e-003</b>	<b>2.0000e-005</b>	<b>1.9900e-003</b>	<b>5.2000e-004</b>	<b>1.0000e-005</b>	<b>5.4000e-004</b>	<b>0.0000</b>	<b>1.7801</b>	<b>1.7801</b>	<b>5.0000e-005</b>	<b>0.0000</b>	<b>1.7814</b>

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	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	0.0796	0.8816	0.5867	1.1800e-003	0.0377	0.0377	0.0377	0.0347	0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
<b>Total</b>	<b>0.0796</b>	<b>0.8816</b>	<b>0.5867</b>	<b>1.1800e-003</b>	<b>0.1741</b>	<b>0.0377</b>	<b>0.2118</b>	<b>0.0693</b>	<b>0.0347</b>	<b>0.1040</b>	<b>0.0000</b>	<b>103.5405</b>	<b>103.5405</b>	<b>0.0335</b>	<b>0.0000</b>	<b>104.3776</b>

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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	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	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-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
<b>Total</b>	<b>1.6400e-003</b>	<b>1.2700e-003</b>	<b>0.0144</b>	<b>4.0000e-005</b>	<b>4.1600e-003</b>	<b>3.0000e-005</b>	<b>4.2000e-003</b>	<b>1.1100e-003</b>	<b>3.0000e-005</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>3.7579</b>	<b>3.7579</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.7607</b>

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					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003	0.0377	0.0377	0.0377	0.0347	0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
<b>Total</b>	<b>0.0796</b>	<b>0.8816</b>	<b>0.5867</b>	<b>1.1800e-003</b>	<b>0.1741</b>	<b>0.0377</b>	<b>0.2118</b>	<b>0.0693</b>	<b>0.0347</b>	<b>0.1040</b>	<b>0.0000</b>	<b>103.5403</b>	<b>103.5403</b>	<b>0.0335</b>	<b>0.0000</b>	<b>104.3775</b>

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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	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	1.6400e-003	1.2700e-003	0.0144	4.0000e-005	4.1600e-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
<b>Total</b>	<b>1.6400e-003</b>	<b>1.2700e-003</b>	<b>0.0144</b>	<b>4.0000e-005</b>	<b>4.1600e-003</b>	<b>3.0000e-005</b>	<b>4.2000e-003</b>	<b>1.1100e-003</b>	<b>3.0000e-005</b>	<b>1.1400e-003</b>	<b>0.0000</b>	<b>3.7579</b>	<b>3.7579</b>	<b>1.1000e-004</b>	<b>0.0000</b>	<b>3.7607</b>

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	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	5.7200e-003	5.2600e-003	5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
<b>Total</b>	<b>0.0127</b>	<b>0.1360</b>	<b>0.1017</b>	<b>2.2000e-004</b>	<b>0.0807</b>	<b>5.7200e-003</b>	<b>0.0865</b>	<b>0.0180</b>	<b>5.2600e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>19.0871</b>	<b>19.0871</b>	<b>6.1700e-003</b>	<b>0.0000</b>	<b>19.2414</b>

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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
<b>Total</b>	<b>2.8000e-004</b>	<b>2.1000e-004</b>	<b>2.4400e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>2.0000e-004</b>	<b>1.0000e-005</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.6679</b>	<b>0.6679</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6684</b>

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	5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
<b>Total</b>	<b>0.0127</b>	<b>0.1360</b>	<b>0.1017</b>	<b>2.2000e-004</b>	<b>0.0807</b>	<b>5.7200e-003</b>	<b>0.0865</b>	<b>0.0180</b>	<b>5.2600e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>19.0871</b>	<b>19.0871</b>	<b>6.1700e-003</b>	<b>0.0000</b>	<b>19.2414</b>

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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	0.6684
<b>Total</b>	<b>2.8000e-004</b>	<b>2.1000e-004</b>	<b>2.4400e-003</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>1.0000e-005</b>	<b>7.7000e-004</b>	<b>2.0000e-004</b>	<b>1.0000e-005</b>	<b>2.1000e-004</b>	<b>0.0000</b>	<b>0.6679</b>	<b>0.6679</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6684</b>

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
<b>Total</b>	<b>0.2158</b>	<b>1.9754</b>	<b>2.0700</b>	<b>3.4100e-003</b>		<b>0.1023</b>	<b>0.1023</b>		<b>0.0963</b>	<b>0.0963</b>	<b>0.0000</b>	<b>293.1324</b>	<b>293.1324</b>	<b>0.0702</b>	<b>0.0000</b>	<b>294.8881</b>

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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	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	1.6961	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	0.3096	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
<b>Total</b>	<b>0.4616</b>	<b>2.0027</b>	<b>3.9885</b>	<b>0.0162</b>	<b>1.2243</b>	<b>0.0121</b>	<b>1.2363</b>	<b>0.3278</b>	<b>0.0112</b>	<b>0.3390</b>	<b>0.0000</b>	<b>1,408.7952</b>	<b>1,408.7952</b>	<b>0.0530</b>	<b>0.0000</b>	<b>1,410,120.8</b>

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					
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
<b>Total</b>	<b>0.2158</b>	<b>1.9754</b>	<b>2.0700</b>	<b>3.4100e-003</b>		<b>0.1023</b>	<b>0.1023</b>		<b>0.0963</b>	<b>0.0963</b>	<b>0.0000</b>	<b>293.1321</b>	<b>293.1321</b>	<b>0.0702</b>	<b>0.0000</b>	<b>294.8877</b>

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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	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	0.0527	1.6961	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	0.3096	3.5305	0.0107	1.1103	8.8700e-003	1.1192	0.2949	8.1700e-003	0.3031	0.0000	966.8117	966.8117	0.0266	0.0000	967.4773
<b>Total</b>	<b>0.4616</b>	<b>2.0027</b>	<b>3.9885</b>	<b>0.0162</b>	<b>1.2243</b>	<b>0.0121</b>	<b>1.2363</b>	<b>0.3278</b>	<b>0.0112</b>	<b>0.3390</b>	<b>0.0000</b>	<b>1,408.7952</b>	<b>1,408.7952</b>	<b>0.0530</b>	<b>0.0000</b>	<b>1,410,120.8</b>

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	NBio- 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
<b>Total</b>	<b>0.1942</b>	<b>1.7765</b>	<b>2.0061</b>	<b>3.3300e-003</b>		<b>0.0864</b>	<b>0.0864</b>		<b>0.0813</b>	<b>0.0813</b>	<b>0.0000</b>	<b>286.2789</b>	<b>286.2789</b>	<b>0.0681</b>	<b>0.0000</b>	<b>287.9814</b>

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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	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	0.0382	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	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	906.9291
<b>Total</b>	<b>0.4135</b>	<b>1.5218</b>	<b>3.5707</b>	<b>0.0144</b>	<b>1.1953</b>	<b>9.8700e-003</b>	<b>1.2051</b>	<b>0.3200</b>	<b>9.1400e-003</b>	<b>0.3292</b>	<b>0.0000</b>	<b>1,327.3369</b>	<b>1,327.3369</b>	<b>0.0462</b>	<b>0.0000</b>	<b>1,328.4916</b>

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					
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	0.0681	0.0000	287.9811
<b>Total</b>	<b>0.1942</b>	<b>1.7765</b>	<b>2.0061</b>	<b>3.3300e-003</b>		<b>0.0864</b>	<b>0.0864</b>		<b>0.0813</b>	<b>0.0813</b>	<b>0.0000</b>	<b>286.2785</b>	<b>286.2785</b>	<b>0.0681</b>	<b>0.0000</b>	<b>287.9811</b>

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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	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	0.3753	0.2708	3.1696	0.0101	1.0840	8.4100e-003	1.0924	0.2879	7.7400e-003	0.2957	0.0000	909.3439	909.3439	0.0234	0.0000	909.9291
<b>Total</b>	<b>0.4135</b>	<b>1.5218</b>	<b>3.5707</b>	<b>0.0144</b>	<b>1.1953</b>	<b>9.8700e-003</b>	<b>1.2051</b>	<b>0.3200</b>	<b>9.1400e-003</b>	<b>0.3292</b>	<b>0.0000</b>	<b>1,327,336</b>	<b>1,327,336</b>	<b>0.0462</b>	<b>0.0000</b>	<b>1,328,491</b>

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	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	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
<b>Total</b>	<b>6.7100e-003</b>	<b>0.0663</b>	<b>0.0948</b>	<b>1.5000e-004</b>		<b>3.3200e-003</b>	<b>3.3200e-003</b>		<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>0.0000</b>	<b>13.0175</b>	<b>13.0175</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1227</b>

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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	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	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	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
<b>Total</b>	<b>3.7000e-004</b>	<b>2.7000e-004</b>	<b>3.1200e-003</b>	<b>1.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.8963</b>	<b>0.8963</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8968</b>

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					
Off-Road	6.7100e-003	0.0663	0.0948	1.5000e-004	3.3200e-003	3.3200e-003	3.3200e-003	3.0500e-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	0.0000	0.0000
<b>Total</b>	<b>6.7100e-003</b>	<b>0.0663</b>	<b>0.0948</b>	<b>1.5000e-004</b>	<b>3.3200e-003</b>	<b>3.3200e-003</b>	<b>3.3200e-003</b>	<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>0.0000</b>	<b>13.0175</b>	<b>13.0175</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1227</b>

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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	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	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	2.9000e-004	0.0000	0.8963	0.8963	2.0000e-005	0.0000	0.8968
<b>Total</b>	<b>3.7000e-004</b>	<b>2.7000e-004</b>	<b>3.1200e-003</b>	<b>1.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0000e-005</b>	<b>1.0800e-003</b>	<b>2.8000e-004</b>	<b>1.0000e-005</b>	<b>2.9000e-004</b>	<b>0.0000</b>	<b>0.8963</b>	<b>0.8963</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.8968</b>

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	tons/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
<b>Total</b>	<b>0.0109</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>	<b>5.1500e-003</b>	<b>5.1500e-003</b>	<b>5.1500e-003</b>	<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>

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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	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	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	1.4697	1.4697	4.0000e-005	0.0000	1.4706
<b>Total</b>	<b>5.9000e-004</b>	<b>4.1000e-004</b>	<b>4.9200e-003</b>	<b>2.0000e-005</b>	<b>1.8100e-003</b>	<b>1.0000e-005</b>	<b>1.8200e-003</b>	<b>4.8000e-004</b>	<b>1.0000e-005</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>1.4697</b>	<b>1.4697</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.4706</b>

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					
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
<b>Total</b>	<b>0.0109</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>	<b>5.1500e-003</b>	<b>5.1500e-003</b>	<b>5.1500e-003</b>	<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>

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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	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	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	1.4697	1.4697	4.0000e-005	0.0000	1.4706
<b>Total</b>	<b>5.9000e-004</b>	<b>4.1000e-004</b>	<b>4.9200e-003</b>	<b>2.0000e-005</b>	<b>1.8100e-003</b>	<b>1.0000e-005</b>	<b>1.8200e-003</b>	<b>4.8000e-004</b>	<b>1.0000e-005</b>	<b>4.9000e-004</b>	<b>0.0000</b>	<b>1.4697</b>	<b>1.4697</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.4706</b>

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	NBio- 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	1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
<b>Total</b>	<b>4.1404</b>	<b>0.0213</b>	<b>0.0317</b>	<b>5.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>4.4682</b>	<b>4.4682</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>4.4745</b>

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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	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	0.0101	6.9900e-003	0.0835	2.8000e-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
<b>Total</b>	<b>0.0101</b>	<b>6.9900e-003</b>	<b>0.0835</b>	<b>2.8000e-004</b>	<b>0.0307</b>	<b>2.3000e-004</b>	<b>0.0309</b>	<b>8.1500e-003</b>	<b>2.2000e-004</b>	<b>8.3700e-003</b>	<b>0.0000</b>	<b>24.9407</b>	<b>24.9407</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>24.9558</b>

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					
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
<b>Total</b>	<b>4.1404</b>	<b>0.0213</b>	<b>0.0317</b>	<b>5.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>4.4682</b>	<b>4.4682</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>4.4745</b>

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

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	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	0.0101	6.9900e-003	0.0835	2.8000e-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
<b>Total</b>	<b>0.0101</b>	<b>6.9900e-003</b>	<b>0.0835</b>	<b>2.8000e-004</b>	<b>0.0307</b>	<b>2.3000e-004</b>	<b>0.0309</b>	<b>8.1500e-003</b>	<b>2.2000e-004</b>	<b>8.3700e-003</b>	<b>0.0000</b>	<b>24.9407</b>	<b>24.9407</b>	<b>6.1000e-004</b>	<b>0.0000</b>	<b>24.9558</b>

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

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
	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620,498.6	7,620,498.6	0.3407	0.0000	7,629,016.2
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620,498.6	7,620,498.6	0.3407	0.0000	7,629,016.2

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	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2,817.72	3,413,937	3,413,937
Hotel	192.00	187.50	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
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

4.3 Trip Type Information

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

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-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down)	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	16.30	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	2,512,646.5	2,512,646.5	0.1037	0.0215	2,521,635.5
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512,646.5	2,512,646.5	0.1037	0.0215	2,521,635.5
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383,426.7	1,383,426.7	0.0265	0.0254	1,391,647.8
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383,426.7	1,383,426.7	0.0265	0.0254	1,391,647.8

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

5.2 Energy by Land Use - NaturalGas

Unmitigated

NaturalGas 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	2.200e-003	0.0188	8.0100e-003	1.2000e-004	1.5200e-003	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	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003	0.0487	0.0487	0.0487	0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004	1.7500e-003	1.7500e-003	1.7500e-003	1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30739e+006	0.0448	0.4072	0.3421	2.4400e-003	0.0310	0.0310	0.0310	0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004	6.4900e-003	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	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004	6.8800e-003	6.8800e-003	6.8800e-003	6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7800e-003	3.0000e-005	3.4000e-004	3.4000e-004	3.4000e-004	3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
<b>Total</b>		<b>0.1398</b>	<b>1.2312</b>	<b>0.7770</b>	<b>7.6200e-003</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0000</b>	<b>1,383.4268</b>	<b>1,383.4268</b>	<b>0.0265</b>	<b>0.0254</b>	<b>1,391.6478</b>

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5.2 Energy by Land Use - NaturalGas  
Mitigated

Land Use	NaturalGas 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	2.200e-003	0.0188	8.0100e-003	1.2000e-004	1.5200e-003	1.5200e-003	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	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003	0.0487	0.0487	0.0487	0.0487	0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.5300e-003	0.0230	0.0193	1.4000e-004	1.7500e-003	1.7500e-003	1.7500e-003	1.7500e-003	1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
High Turnover (Sit Down Restaurant)	8.30739e+006	0.0448	0.4072	0.3421	2.4400e-003	0.0310	0.0310	0.0310	0.0310	0.0310	0.0310	0.0000	443.3124	443.3124	8.5000e-003	8.1300e-003	445.9468
Hotel	1.74095e+006	9.3900e-003	0.0853	0.0717	5.1000e-004	6.4900e-003	6.4900e-003	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	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004	6.8800e-003	6.8800e-003	6.8800e-003	6.8800e-003	6.8800e-003	6.8800e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.0000e-004	4.5000e-003	3.7600e-003	3.0000e-005	3.4000e-004	3.4000e-004	3.4000e-004	3.4000e-004	3.4000e-004	3.4000e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
<b>Total</b>		<b>0.1398</b>	<b>1.2312</b>	<b>0.7770</b>	<b>7.6200e-003</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0966</b>	<b>0.0000</b>	<b>1,383.4268</b>	<b>1,383.4268</b>	<b>0.0265</b>	<b>0.0254</b>	<b>1,391.6478</b>

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**5.3 Energy by Land Use - Electricity**  
**Unmitigated**

Land Use	Electricity Use KWh/yr	Total CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e MT/yr
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	758000	240.8778	9.9400e-003	2.0600e-003	241.7395
<b>Total</b>		<b>2,512.6465</b>	<b>0.1037</b>	<b>0.0215</b>	<b>2,521.6356</b>

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5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use KWh/yr	Total CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e MT/yr
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	506.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	758000	240.8778	9.9400e-003	2.0600e-003	241.7395
<b>Total</b>		<b>2,512.6465</b>	<b>0.1037</b>	<b>0.0215</b>	<b>2,521.6356</b>

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6.0 Area Detail

6.1 Mitigation Measures Area

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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					
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	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	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
<b>Total</b>	<b>5.1437</b>	<b>0.2950</b>	<b>10.3804</b>	<b>1.6600e-003</b>		<b>0.0714</b>	<b>0.0714</b>		<b>0.0714</b>	<b>0.0714</b>	<b>0.0000</b>	<b>220.9670</b>	<b>220.9670</b>	<b>0.0201</b>	<b>3.7400e-003</b>	<b>222.5835</b>

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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
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	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	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
<b>Total</b>	<b>5.1437</b>	<b>0.2950</b>	<b>10.3894</b>	<b>1.6600e-003</b>		<b>0.0714</b>	<b>0.0714</b>		<b>0.0714</b>	<b>0.0714</b>	<b>0.0000</b>	<b>220.9670</b>	<b>220.9670</b>	<b>0.0201</b>	<b>3.7400e-003</b>	<b>222.5835</b>

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7.0 Water Detail

7.1 Mitigation Measures Water

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	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	585,8052	3,0183	0,0755	683,7567
Unmitigated	585,8052	3,0183	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	MTYr			
Apartments Low Rise	1.62885 / 1.02688	10.9096	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	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
<b>Total</b>		<b>685.8052</b>	<b>3.0183</b>	<b>0.0755</b>	<b>683.7567</b>

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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	1.62885 / 1.02688	10.9096	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	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42827 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
<b>Total</b>		<b>685.8052</b>	<b>3.0183</b>	<b>0.0755</b>	<b>683.7567</b>

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

8.2 Waste by Land Use

Unmitigated

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
		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	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5679	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0676	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
<b>Total</b>		<b>207.8079</b>	<b>12.2811</b>	<b>0.0000</b>	<b>514.8364</b>

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

**8.2 Waste by Land Use**

**Mitigated**

Land Use	Waste Disposed tons	Total CO2	CH4	N2O	CO2e
		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	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5679	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0676	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
<b>Total</b>		<b>207.8079</b>	<b>12.2811</b>	<b>0.0000</b>	<b>614.8364</b>

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**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	72,600.00	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	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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
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	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

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

tbiVehicleTrips	SU_TR	5.95	3.20
tbiVehicleTrips	SU_TR	72.16	57.65
tbiVehicleTrips	SU_TR	25.24	6.39
tbiVehicleTrips	WD_TR	6.59	5.83
tbiVehicleTrips	WD_TR	6.65	4.13
tbiVehicleTrips	WD_TR	11.03	6.41
tbiVehicleTrips	WD_TR	127.15	65.80
tbiVehicleTrips	WD_TR	8.17	3.84
tbiVehicleTrips	WD_TR	89.95	62.84
tbiVehicleTrips	WD_TR	42.70	9.43
tbiWoodstoves	NumberCatalytic	1.25	0.00
tbiWoodstoves	NumberCatalytic	48.75	0.00
tbiWoodstoves	NumberNoncatalytic	1.25	0.00
tbiWoodstoves	NumberNoncatalytic	48.75	0.00
tbiWoodstoves	WoodstoveDayYear	25.00	0.00
tbiWoodstoves	WoodstoveDayYear	25.00	0.00
tbiWoodstoves	WoodstoveWoodMass	999.60	0.00
tbiWoodstoves	WoodstoveWoodMass	999.60	0.00

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**2.0 Emissions Summary**

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated 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	46.4688	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7597	0.1472	9.8688	0.7794	10.6482	2.6381	0.7322	3.3702	0.0000	14,807.5269	14,807.5269	1.0250	0.0000	14,833.1521
2024	237.1630	9.5576	15.1043	0.0244	1.7884	0.4696	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	237.1630	46.4688	49.5629	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

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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	4.2769	46.4688	31.6840	0.0643	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,234.7974	6,234.7974	1.9495	0.0000	6,283.5352
2022	5.3304	38.8967	49.5629	0.1517	9.8688	1.6366	10.7727	3.6558	1.5057	5.1615	0.0000	15,251.5674	15,251.5674	1.9503	0.0000	15,278.5288
2023	4.8957	26.3317	46.7597	0.1472	9.8688	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	1.7884	0.4696	1.8628	0.4743	0.4322	0.5476	0.0000	2,361.3989	2,361.3989	0.7177	0.0000	2,379.3421
Maximum	237.1630	46.4688	49.5629	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

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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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	18,259.11 92
Energy	0.7660	6.7462	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
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
<b>Total</b>	<b>41.1168</b>	<b>67.2262</b>	<b>207.5497</b>	<b>0.6278</b>	<b>45.9592</b>	<b>2.4626</b>	<b>48.4217</b>	<b>12.2950</b>	<b>2.4385</b>	<b>14.7336</b>	<b>0.0000</b>	<b>76,811.18 16</b>	<b>76,811.18 16</b>	<b>2.8282</b>	<b>0.4832</b>	<b>77,025.87 86</b>

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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	18,259.11 92
Energy	0.7660	6.7462	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
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
<b>Total</b>	<b>41.1168</b>	<b>67.2262</b>	<b>207.5497</b>	<b>0.6278</b>	<b>45.9592</b>	<b>2.4626</b>	<b>48.4217</b>	<b>12.2950</b>	<b>2.4385</b>	<b>14.7336</b>	<b>0.0000</b>	<b>76,811.18 16</b>	<b>76,811.18 16</b>	<b>2.8282</b>	<b>0.4832</b>	<b>77,025.87 86</b>

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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**

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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	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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**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	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	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			3,747.9449	3,747.9449	1.0549	3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>			<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>	<b>3,774.3174</b>

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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	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		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		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
<b>Total</b>	<b>0.1916</b>	<b>4.1394</b>	<b>1.5644</b>	<b>0.0136</b>	<b>0.4346</b>	<b>0.0139</b>	<b>0.4485</b>	<b>0.1176</b>	<b>0.0133</b>	<b>0.1309</b>		<b>1,463.0668</b>	<b>1,463.0668</b>	<b>0.0927</b>		<b>1,465.3750</b>

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	3,747.9449	1.0549		3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>	<b>0.0000</b>	<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>		<b>3,774.3174</b>

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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	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292.2413	1,292.2413	0.0877		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		0.0000
Worker	0.0643	0.0442	0.6042	1.7100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		170.8155	170.8155	5.0300e-003		170.9413
<b>Total</b>	<b>0.1916</b>	<b>4.1394</b>	<b>1.5644</b>	<b>0.0136</b>	<b>0.4346</b>	<b>0.0139</b>	<b>0.4485</b>	<b>0.1176</b>	<b>0.0133</b>	<b>0.1309</b>		<b>1,463.0568</b>	<b>1,463.0568</b>	<b>0.0927</b>		<b>1,465.3750</b>

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	3,685.6569	1.1920		3,715.4573
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

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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	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	0.0549		204.9786	204.9786	6.0400e-003		205.1296
<b>Total</b>	<b>0.0772</b>	<b>0.0530</b>	<b>0.7250</b>	<b>2.0600e-003</b>	<b>0.2012</b>	<b>1.6300e-003</b>	<b>0.2028</b>	<b>0.0534</b>	<b>1.5000e-003</b>	<b>0.0549</b>		<b>204.9786</b>	<b>204.9786</b>	<b>6.0400e-003</b>		<b>205.1296</b>

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
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

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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	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	0.0549		204.9786	204.9786	6.0400e-003		205.1296
<b>Total</b>	<b>0.0772</b>	<b>0.0530</b>	<b>0.7250</b>	<b>2.0600e-003</b>	<b>0.2012</b>	<b>1.6300e-003</b>	<b>0.2028</b>	<b>0.0534</b>	<b>1.5000e-003</b>	<b>0.0549</b>		<b>204.9786</b>	<b>204.9786</b>	<b>6.0400e-003</b>		<b>205.1296</b>

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	3.5965	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
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

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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	0.0857	0.0589	0.8056	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
<b>Total</b>	<b>0.0857</b>	<b>0.0589</b>	<b>0.8056</b>	<b>2.2900e-003</b>	<b>0.2236</b>	<b>1.8100e-003</b>	<b>0.2254</b>	<b>0.0593</b>	<b>1.6600e-003</b>	<b>0.0610</b>		<b>227.7540</b>	<b>227.7540</b>	<b>6.7100e-003</b>		<b>227.9217</b>

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
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

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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	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	2.2900e-003	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		227.7540	227.7540	6.7100e-003		227.9217
<b>Total</b>	<b>0.0857</b>	<b>0.0589</b>	<b>0.8056</b>	<b>2.2900e-003</b>	<b>0.2236</b>	<b>1.8100e-003</b>	<b>0.2254</b>	<b>0.0593</b>	<b>1.6600e-003</b>	<b>0.0610</b>		<b>227.7540</b>	<b>227.7540</b>	<b>6.7100e-003</b>		<b>227.9217</b>

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	3.5965	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
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

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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		219.8941
<b>Total</b>	<b>0.0803</b>	<b>0.0532</b>	<b>0.7432</b>	<b>2.2100e-003</b>	<b>0.2236</b>	<b>1.7500e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.6100e-003</b>	<b>0.0609</b>		<b>219.7425</b>	<b>219.7425</b>	<b>6.0600e-003</b>		<b>219.8941</b>

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	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
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

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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	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		219.8941
<b>Total</b>	<b>0.0803</b>	<b>0.0532</b>	<b>0.7432</b>	<b>2.2100e-003</b>	<b>0.2236</b>	<b>1.7500e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.6100e-003</b>	<b>0.0609</b>		<b>219.7425</b>	<b>219.7425</b>	<b>6.0600e-003</b>		<b>219.8941</b>

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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

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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	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	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429		8,806.7582
<b>Total</b>	<b>3.6242</b>	<b>15.3350</b>	<b>33.1995</b>	<b>0.1247</b>	<b>9.8688</b>	<b>0.0949</b>	<b>9.9637</b>	<b>2.6381</b>	<b>0.0883</b>	<b>2.7263</b>		<b>12,697.2339</b>	<b>12,697.2339</b>	<b>0.4665</b>		<b>12,706.8966</b>

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	1.7062	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
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

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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	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	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236			3,902.1384
Worker	3.2162	2.1318	29.7654	0.0883	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,800.6857	8,800.6857	0.2429			8,806.7582
Total	3.6242	15.3350	33.1995	0.1247	9.8688	0.0949	9.9637	2.6381	0.0883	2.7263		12,697.2339	12,697.2339	0.4665			12,706.8966

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	NBio- 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			2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079			2,570.4061

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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	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	0.9156	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	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
<b>Total</b>	<b>3.3229</b>	<b>11.9468</b>	<b>30.5127</b>	<b>0.1203</b>	<b>9.8688</b>	<b>0.0797</b>	<b>9.9486</b>	<b>2.6381</b>	<b>0.0738</b>	<b>2.7118</b>		<b>12,252.3170</b>	<b>12,252.3170</b>	<b>0.4172</b>		<b>12,262.7480</b>

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

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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	0.9156	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	2.3745	0.0627	2.4372		8,478.4408	8,478.4408	0.2190		8,483.9160
<b>Total</b>	<b>3.3229</b>	<b>11.9468</b>	<b>30.5127</b>	<b>0.1203</b>	<b>9.8688</b>	<b>0.0797</b>	<b>9.9485</b>	<b>2.6381</b>	<b>0.0738</b>	<b>2.7118</b>		<b>12,252.3170</b>	<b>12,252.3170</b>	<b>0.4172</b>		<b>12,262.7480</b>

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
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

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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	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	0.0566	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
<b>Total</b>	<b>0.0566</b>	<b>0.0361</b>	<b>0.5133</b>	<b>1.5900e-003</b>	<b>0.1677</b>	<b>1.2800e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1700e-003</b>	<b>0.0456</b>		<b>158.7723</b>	<b>158.7723</b>	<b>4.1000e-003</b>		<b>158.8748</b>

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	2,207,584.1	2,207,584.1	0.7140		2,225,433.6
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207,584.1</b>	<b>2,207,584.1</b>	<b>0.7140</b>		<b>2,225,433.6</b>

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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	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	0.0566	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	NBio- CO2	Total CO2	CH4	N2O	CO2e	
Category	lb/day										lb/day						
Off-Road	0.9882	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	0.9882	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

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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			153.9458
<b>Total</b>	<b>0.0535</b>	<b>0.0329</b>	<b>0.4785</b>	<b>1.5400e-003</b>	<b>0.1677</b>	<b>1.2600e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0456</b>		<b>153.8517</b>	<b>153.8517</b>	<b>3.7600e-003</b>			<b>153.9458</b>

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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140			2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000							0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>	<b>0.0000</b>	<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>			<b>2,225.3963</b>

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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	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		153.9458
<b>Total</b>	<b>0.0535</b>	<b>0.0329</b>	<b>0.4785</b>	<b>1.5400e-003</b>	<b>0.1677</b>	<b>1.2600e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0456</b>		<b>153.8517</b>	<b>153.8517</b>	<b>3.7600e-003</b>		<b>153.9458</b>

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	NBio- 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
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

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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	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	0.0165	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
<b>Total</b>	<b>0.5707</b>	<b>0.3513</b>	<b>5.1044</b>	<b>0.0165</b>	<b>1.7884</b>	<b>0.0134</b>	<b>1.8018</b>	<b>0.4743</b>	<b>0.0123</b>	<b>0.4866</b>		<b>1,641,085 2</b>	<b>1,641,085 2</b>	<b>0.0401</b>			<b>1,642,088 6</b>

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					0.0000	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	0.0000	281.4481	281.4481	0.0159			281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>			<b>281.8443</b>

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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	0.0165	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
<b>Total</b>	<b>0.5707</b>	<b>0.3513</b>	<b>5.1044</b>	<b>0.0165</b>	<b>1.7884</b>	<b>0.0134</b>	<b>1.8018</b>	<b>0.4743</b>	<b>0.0123</b>	<b>0.4866</b>		<b>1,641,085 2</b>	<b>1,641,085 2</b>	<b>0.0401</b>		<b>1,642,088 6</b>

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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
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070	50,306.60	34	50,306.60	34	2.1807	50,361.12
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070	50,306.60	34	50,306.60	34	2.1807	50,361.12

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	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	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
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

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-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down)	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	16.30	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

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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	0.7660	6.7462	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	0.7660	6.7462	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
		lb/day										lb/day					
Apartments Low Rise	1119.16	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	131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486	
Apartments Mid Rise	35784.3	0.3859	3.2978	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	4,234.9339	
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	9.5600e-003	9.5600e-003	150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884	
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460	
Hotel	4769.72	0.0514	0.4676	0.3928	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	5057.75	0.0545	0.4959	0.4165	2.6900e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0296	595.0296	0.0114	0.0109	598.5658	
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	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778	
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>	

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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 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
		lb/day										lb/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	131.6662	131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211	0.2666	0.2666	0.2666	0.2666	0.2666	0.2666	4,209.9164	4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	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	150.9911	2.8900e-003	2.7700e-003	151.8884
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	2,677.6342	2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003	0.0355	0.0355	0.0355	0.0355	0.0355	0.0355	561.1436	561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.6900e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0296	595.0296	595.0296	0.0114	0.0109	598.5658
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	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

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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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	1.6500	14.1000	6.0000	0.0900		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		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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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	2.2670					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	1.6500	14.1000	6.0000	0.0900		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		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,258.1192</b>

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

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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**

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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	72,600.00	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	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	0.006

**1.3 User Entered Comments & Non-Default Data**

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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	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27

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

tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.65
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.84
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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**2.0 Emissions Summary**

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated 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
	lb/day										lb/day					
2021	4.2865	46.4651	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	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4696	1.8628	0.4743	0.4322	0.5476	0.0000	2,352,417.8	2,352,417.8	0.7175	0.0000	2,370,355.0
Maximum	237.2328	46.4651	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	46.4651	31.6150	0.0642	18.2675	2.0461	20.3135	9.9840	1.8824	11.8664	0.0000	6,221.4937	6,221.4937	1.9491	0.0000	6,270.2214
2022	5.7218	38.9024	47.3319	0.1455	9.8688	1.6366	10.7736	3.6558	1.5057	5.1615	0.0000	14,630.3099	14,630.3099	1.9499	0.0000	14,657.2663
2023	5.2705	26.4914	44.5936	0.1413	9.8688	0.7800	10.6488	2.6381	0.7328	3.3708	0.0000	14,210.3424	14,210.3424	1.0230	0.0000	14,235.9160
2024	237.2328	9.5610	15.0611	0.0243	1.7884	0.4698	1.8628	0.4743	0.4322	0.5476	0.0000	2,352.4178	2,352.4178	0.7175	0.0000	2,370.3550
Maximum	237.2328	46.4651	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
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, 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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	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
<b>Total</b>	<b>40.7912</b>	<b>67.7872</b>	<b>202.7424</b>	<b>0.6043</b>	<b>45.9592</b>	<b>2.4640</b>	<b>48.4231</b>	<b>12.2950</b>	<b>2.4399</b>	<b>14.7349</b>	<b>0.0000</b>	<b>74,422.3787</b>	<b>74,422.3787</b>	<b>2.8429</b>	<b>0.4832</b>	<b>74,637.4417</b>

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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	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
<b>Total</b>	<b>40.7912</b>	<b>67.7872</b>	<b>202.7424</b>	<b>0.6043</b>	<b>45.9592</b>	<b>2.4640</b>	<b>48.4231</b>	<b>12.2950</b>	<b>2.4399</b>	<b>14.7349</b>	<b>0.0000</b>	<b>74,422.3787</b>	<b>74,422.3787</b>	<b>2.8429</b>	<b>0.4832</b>	<b>74,637.4417</b>

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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	

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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	48	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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**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	Nbio-CO2	Total CO2	CH4	N2O	CO2e
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			3,747.9449	3,747.9449	1.0549	3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>			<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>	<b>3,774.3174</b>

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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	0.1904	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269,855.5	1,269,855.5	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	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.6377	160.6377	4.7300e-003		160.9560
<b>Total</b>	<b>0.2019</b>	<b>4.1943</b>	<b>1.5706</b>	<b>0.0133</b>	<b>0.4346</b>	<b>0.0141</b>	<b>0.4487</b>	<b>0.1176</b>	<b>0.0135</b>	<b>0.1311</b>		<b>1,430,693.2</b>	<b>1,430,693.2</b>	<b>0.0955</b>		<b>1,433,081.2</b>

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
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>	<b>0.0000</b>	<b>3,747,944.9</b>	<b>3,747,944.9</b>	<b>1.0549</b>		<b>3,774,317.4</b>

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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	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1904	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269,855.5	1,269,855.5	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	0.0715	0.0489	0.5524	1.6100e-003	0.1677	1.3500e-003	0.1690	0.0445	1.2500e-003	0.0457		160.6377	160.6377	4.7300e-003		160.9560
<b>Total</b>	<b>0.2019</b>	<b>4.1943</b>	<b>1.5706</b>	<b>0.0133</b>	<b>0.4346</b>	<b>0.0141</b>	<b>0.4487</b>	<b>0.1176</b>	<b>0.0135</b>	<b>0.1311</b>		<b>1,430,693.2</b>	<b>1,430,693.2</b>	<b>0.0955</b>		<b>1,433,081.2</b>

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		3,685,656.9	3,685,656.9	1.1920		3,715,457.3
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685,656.9</b>	<b>3,685,656.9</b>	<b>1.1920</b>		<b>3,715,457.3</b>

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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	0.0549		193.0052	193.0052	5.6800e-003		193.1472
<b>Total</b>	<b>0.0858</b>	<b>0.0587</b>	<b>0.6629</b>	<b>1.9400e-003</b>	<b>0.2012</b>	<b>1.6300e-003</b>	<b>0.2028</b>	<b>0.0534</b>	<b>1.5000e-003</b>	<b>0.0549</b>		<b>193.0052</b>	<b>193.0052</b>	<b>5.6800e-003</b>		<b>193.1472</b>

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
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

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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	0.0858	0.0587	0.6629	1.9400e-003	0.2012	1.6300e-003	0.2028	0.0534	1.5000e-003	0.0549		193.0052	193.0052	5.6800e-003			193.1472
<b>Total</b>	<b>0.0858</b>	<b>0.0587</b>	<b>0.6629</b>	<b>1.9400e-003</b>	<b>0.2012</b>	<b>1.6300e-003</b>	<b>0.2028</b>	<b>0.0534</b>	<b>1.5000e-003</b>	<b>0.0549</b>		<b>193.0052</b>	<b>193.0052</b>	<b>5.6800e-003</b>			<b>193.1472</b>

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	3.5965	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
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>			<b>6,055.6134</b>

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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	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
<b>Total</b>	<b>0.0954</b>	<b>0.0652</b>	<b>0.7365</b>	<b>2.1500e-003</b>	<b>0.2236</b>	<b>1.8100e-003</b>	<b>0.2254</b>	<b>0.0593</b>	<b>1.6600e-003</b>	<b>0.0610</b>		<b>214.4502</b>	<b>214.4502</b>	<b>6.3100e-003</b>		<b>214.6080</b>

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
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

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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	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	0.2236	1.8100e-003	0.2254	0.0593	1.6600e-003	0.0610		214.4502	214.4502	6.3100e-003		214.6080
<b>Total</b>	<b>0.0954</b>	<b>0.0652</b>	<b>0.7365</b>	<b>2.1500e-003</b>	<b>0.2236</b>	<b>1.8100e-003</b>	<b>0.2254</b>	<b>0.0593</b>	<b>1.6600e-003</b>	<b>0.0610</b>		<b>214.4502</b>	<b>214.4502</b>	<b>6.3100e-003</b>		<b>214.6080</b>

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	3.5965	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
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

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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	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	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
<b>Total</b>	<b>0.0896</b>	<b>0.0589</b>	<b>0.6784</b>	<b>2.0800e-003</b>	<b>0.2236</b>	<b>1.7500e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.6100e-003</b>	<b>0.0609</b>		<b>206.9139</b>	<b>206.9139</b>	<b>5.7000e-003</b>		<b>207.0563</b>

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	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
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

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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	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	0.0896	0.0589	0.6784	2.0800e-003	0.2236	1.7500e-003	0.2253	0.0593	1.6100e-003	0.0609		206.9139	206.9139	5.7000e-003		207.0563
<b>Total</b>	<b>0.0896</b>	<b>0.0589</b>	<b>0.6784</b>	<b>2.0800e-003</b>	<b>0.2236</b>	<b>1.7500e-003</b>	<b>0.2253</b>	<b>0.0593</b>	<b>1.6100e-003</b>	<b>0.0609</b>		<b>206.9139</b>	<b>206.9139</b>	<b>5.7000e-003</b>		<b>207.0563</b>

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	lb/day										lb/day					
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
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554,333.6</b>	<b>2,554,333.6</b>	<b>0.6120</b>		<b>2,569,632.2</b>

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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	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	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282		8,292.6058
<b>Total</b>	<b>4.0156</b>	<b>15.5266</b>	<b>30.9685</b>	<b>0.1186</b>	<b>9.9688</b>	<b>0.0957</b>	<b>9.9645</b>	<b>2.6381</b>	<b>0.0891</b>	<b>2.7271</b>		<b>12,075.9763</b>	<b>12,075.9763</b>	<b>0.4663</b>		<b>12,087.6341</b>

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	1.7062	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
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

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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	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	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381			3,795.0283
Worker	3.5872	2.3593	27.1680	0.0832	8.9533	0.0701	9.0234	2.3745	0.0646	2.4390		8,286.9013	8,286.9013	0.2282			8,292.6058
<b>Total</b>	<b>4.0156</b>	<b>15.5266</b>	<b>30.9685</b>	<b>0.1186</b>	<b>9.9688</b>	<b>0.0957</b>	<b>9.9645</b>	<b>2.6381</b>	<b>0.0891</b>	<b>2.7271</b>		<b>12,075.9763</b>	<b>12,075.9763</b>	<b>0.4663</b>			<b>12,087.6341</b>

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	NBio- 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			2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>			<b>2,570.4061</b>

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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	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	0.3183	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		3,676.6417
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983.7318	7,983.7318	0.2055		7,988.8683
<b>Total</b>	<b>3.6978</b>	<b>12.1065</b>	<b>28.3496</b>	<b>0.1144</b>	<b>9.8688</b>	<b>0.0803</b>	<b>9.9491</b>	<b>2.6381</b>	<b>0.0743</b>	<b>2.7124</b>		<b>11,655.1325</b>	<b>11,655.1325</b>	<b>0.4151</b>		<b>11,665.5099</b>

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

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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	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	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671,400 7	3,671,400 7	0.2096			3,676,641 7
Worker	3.3795	2.1338	24.9725	0.0801	8.9533	0.0681	9.0214	2.3745	0.0627	2.4372		7,983,731 8	7,983,731 8	0.2055			7,988,668 3
Total	3.6978	12.1065	28.3496	0.1144	9.8688	0.0803	9.9491	2.6381	0.0743	2.7124		11,655.13 25	11,655.13 25	0.4151			11,665.50 99

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		2,207,584 1	2,207,584 1	0.7140			2,225,433 6
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		2,207,584 1	2,207,584 1	0.7140			2,225,433 6

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Con.

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			149.6043
<b>Total</b>	<b>0.0633</b>	<b>0.0400</b>	<b>0.4677</b>	<b>1.5000e-003</b>	<b>0.1677</b>	<b>1.2800e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1700e-003</b>	<b>0.0456</b>		<b>149.5081</b>	<b>149.5081</b>	<b>3.8500e-003</b>			<b>149.6043</b>

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
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>			<b>2,225.4336</b>

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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	0.0633	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		149.6043
<b>Total</b>	<b>0.0633</b>	<b>0.0400</b>	<b>0.4677</b>	<b>1.5000e-003</b>	<b>0.1677</b>	<b>1.2800e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1700e-003</b>	<b>0.0456</b>		<b>149.5081</b>	<b>149.5081</b>	<b>3.8500e-003</b>		<b>149.6043</b>

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	0.9882	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
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

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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	0.0601	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
<b>Total</b>	<b>0.0601</b>	<b>0.0364</b>	<b>0.4354</b>	<b>1.4500e-003</b>	<b>0.1677</b>	<b>1.2600e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0456</b>		<b>144.8706</b>	<b>144.8706</b>	<b>3.5300e-003</b>		<b>144.9587</b>

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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140		2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000						0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>	<b>0.0000</b>	<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

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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	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	0.0601	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
<b>Total</b>	<b>0.0601</b>	<b>0.0364</b>	<b>0.4354</b>	<b>1.4500e-003</b>	<b>0.1677</b>	<b>1.2600e-003</b>	<b>0.1689</b>	<b>0.0445</b>	<b>1.1600e-003</b>	<b>0.0456</b>		<b>144.8706</b>	<b>144.8706</b>	<b>3.5300e-003</b>			<b>144.9587</b>

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	NBio- 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
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>			<b>281.8443</b>

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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
<b>Total</b>	<b>0.6406</b>	<b>0.3886</b>	<b>4.6439</b>	<b>0.0155</b>	<b>1.7884</b>	<b>0.0134</b>	<b>1.8018</b>	<b>0.4743</b>	<b>0.0123</b>	<b>0.4866</b>		<b>1,545,286 0</b>	<b>1,545,286 0</b>	<b>0.0376</b>			<b>1,546,226 2</b>

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					0.0000	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	0.0000	281.4481	281.4481	0.0159			281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>			<b>281.8443</b>

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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	0.6406	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
<b>Total</b>	<b>0.6406</b>	<b>0.3886</b>	<b>4.6439</b>	<b>0.0155</b>	<b>1.7884</b>	<b>0.0134</b>	<b>1.8018</b>	<b>0.4743</b>	<b>0.0123</b>	<b>0.4866</b>		<b>1,545,286 0</b>	<b>1,545,286 0</b>	<b>0.0376</b>		<b>1,546,226 2</b>

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

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
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	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	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
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

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-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down)	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	16.30	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

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5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

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

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					
NaturalGas Mitigated	0.7660	6.7462	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	0.7660	6.7462	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
		lb/day										lb/day					
Apartments Low Rise	1119.16	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	131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486	
Apartments Mid Rise	35784.3	0.3859	3.2978	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	4,234.9339	
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	9.5600e-003	9.5600e-003	150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884	
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460	
Hotel	4769.72	0.0514	0.4676	0.3928	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	5057.75	0.0545	0.4959	0.4165	2.6900e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0296	595.0296	0.0114	0.0109	598.5658	
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	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778	
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>	

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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 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
		lb/day										lb/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	131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486	
Apartments Mid Rise	35.7843	0.3859	3.2978	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	4,234.9339	
General Office Building	1.28342	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	2.8900e-003	2.7700e-003	151.8884	
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	2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460	
Hotel	4.76972	0.0514	0.4676	0.3928	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	5.05775	0.0545	0.4959	0.4165	2.6900e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0296	595.0296	0.0114	0.0109	598.5658	
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	
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

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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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	1.6500	14.1000	6.0000	0.0900		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		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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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	2.2670					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	1.6500	14.1000	6.0000	0.0900		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		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

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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**

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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	72,600.00	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	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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.

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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tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.85
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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2.0 Emissions Summary

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

2.1 Overall Construction

Unmitigated 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	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7654	210.7654	0.0600	0.0000	212.2661
2022	0.5865	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4412	1,342.4412	0.1115	0.0000	1,345.2291
2024	4.1592	4.0240	0.2567	5.0000e-004	0.0221	6.3500e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6355	44.6355	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	1,418.6554	1,418.6554	0.1215	0.0000	1,421.6925

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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	0.1704	1.8234	1.1577	2.3800e-003	0.4141	0.0817	0.4958	0.1788	0.0754	0.2542	0.0000	210.7651	210.7651	0.0600	0.0000	212.2658
2022	0.5855	4.0240	5.1546	0.0155	0.9509	0.1175	1.0683	0.2518	0.1103	0.3621	0.0000	1,418.6550	1,418.6550	0.1215	0.0000	1,421.6921
2023	0.5190	3.2850	4.7678	0.0147	0.8497	0.0971	0.9468	0.2283	0.0912	0.3195	0.0000	1,342.4409	1,342.4409	0.1115	0.0000	1,345.2287
2024	4.1592	0.1313	0.2557	5.0000e-004	0.0221	6.3500e-003	0.0285	5.8700e-003	5.9700e-003	0.0118	0.0000	44.6354	44.6354	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	1,418.6550	1,418.6550	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	2-28-2024	2.8757	2.8757
11	3-1-2024	5-31-2024	1.6188	1.6188
		Highest	2.8757	2.8757

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	tons/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	222.5835
Energy	0.1398	1.2312	0.7770	7.5200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2633
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
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	556.6420	585.8052	3.0183	0.0755	683.7967
<b>Total</b>	<b>6.8692</b>	<b>9.5223</b>	<b>30.3407</b>	<b>0.0914</b>	<b>7.7979</b>	<b>0.2260</b>	<b>8.0240</b>	<b>2.0895</b>	<b>0.2219</b>	<b>2.3114</b>	<b>236.9712</b>	<b>12,294.1807</b>	<b>12,631.1519</b>	<b>15.7904</b>	<b>0.1260</b>	<b>12,963.4751</b>

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2.2 Overall Operational

Mitigated 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	N2O	CO2e
Category	tons/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	222.5835
Energy	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	3,896.0732	3,896.0732	0.1303	0.0468	3,913.2833
Mobile	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162
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	556.6420	585.8052	3.0183	0.0755	683.7567
<b>Total</b>	<b>6.8692</b>	<b>9.5223</b>	<b>30.3407</b>	<b>0.0914</b>	<b>7.7979</b>	<b>0.2260</b>	<b>8.0240</b>	<b>2.0895</b>	<b>0.2219</b>	<b>2.3114</b>	<b>236.9712</b>	<b>12,294.1807</b>	<b>12,531.1519</b>	<b>15.7904</b>	<b>0.1260</b>	<b>12,963.4751</b>

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
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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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	11/9/2021	5	20	
3	Grading	Grading	11/10/2021	11/11/2022	5	45	
4	Building Construction	Building Construction	11/12/2022	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	48	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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**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

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
	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	5.8000e-004		0.0233	0.0233		0.0216	0.0216	0.0000	51.0012	51.0012	0.0144	0.0000	51.3601
<b>Total</b>	<b>0.0475</b>	<b>0.4716</b>	<b>0.3235</b>	<b>5.8000e-004</b>	<b>0.0496</b>	<b>0.0233</b>	<b>0.0729</b>	<b>7.5100e-003</b>	<b>0.0216</b>	<b>0.0291</b>	<b>0.0000</b>	<b>51.0012</b>	<b>51.0012</b>	<b>0.0144</b>	<b>0.0000</b>	<b>51.3601</b>

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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	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5283
<b>Total</b>	<b>2.6500e-003</b>	<b>0.0639</b>	<b>0.0209</b>	<b>2.0000e-004</b>	<b>6.6200e-003</b>	<b>2.0000e-004</b>	<b>5.8200e-003</b>	<b>1.5300e-003</b>	<b>1.9000e-004</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>18.9847</b>	<b>18.9847</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>19.0161</b>

**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					0.0496	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	51.3600
<b>Total</b>	<b>0.0475</b>	<b>0.4716</b>	<b>0.3235</b>	<b>5.8000e-004</b>	<b>0.0496</b>	<b>0.0233</b>	<b>0.0729</b>	<b>7.5100e-003</b>	<b>0.0216</b>	<b>0.0291</b>	<b>0.0000</b>	<b>51.0011</b>	<b>51.0011</b>	<b>0.0144</b>	<b>0.0000</b>	<b>51.3600</b>

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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	tons/yr										MT/yr					
Hauling	1.9300e-003	0.0634	0.0148	1.8000e-004	3.9400e-003	1.9000e-004	4.1300e-003	1.0800e-003	1.8000e-004	1.2600e-003	0.0000	17.4566	17.4566	1.2100e-003	0.0000	17.4869
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	1.6800e-003	1.0000e-005	1.6900e-003	4.5000e-004	1.0000e-005	4.6000e-004	0.0000	1.5281	1.5281	5.0000e-005	0.0000	1.5293
<b>Total</b>	<b>2.6500e-003</b>	<b>0.0639</b>	<b>0.0209</b>	<b>2.0000e-004</b>	<b>6.6200e-003</b>	<b>2.0000e-004</b>	<b>5.8200e-003</b>	<b>1.5300e-003</b>	<b>1.9000e-004</b>	<b>1.7200e-003</b>	<b>0.0000</b>	<b>18.9847</b>	<b>18.9847</b>	<b>1.2600e-003</b>	<b>0.0000</b>	<b>19.0161</b>

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	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	33.7061
<b>Total</b>	<b>0.0389</b>	<b>0.4050</b>	<b>0.2115</b>	<b>3.8000e-004</b>	<b>0.1807</b>	<b>0.0204</b>	<b>0.2011</b>	<b>0.0993</b>	<b>0.0188</b>	<b>0.1181</b>	<b>0.0000</b>	<b>33.4357</b>	<b>33.4357</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.7061</b>

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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	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	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234
<b>Total</b>	<b>5.8000e-004</b>	<b>4.3000e-004</b>	<b>4.8700e-003</b>	<b>1.0000e-005</b>	<b>1.3400e-003</b>	<b>1.0000e-005</b>	<b>1.3500e-003</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.2225</b>	<b>1.2225</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.2234</b>

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					0.1807	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	33.7060
<b>Total</b>	<b>0.0389</b>	<b>0.4050</b>	<b>0.2115</b>	<b>3.8000e-004</b>	<b>0.1807</b>	<b>0.0204</b>	<b>0.2011</b>	<b>0.0993</b>	<b>0.0188</b>	<b>0.1181</b>	<b>0.0000</b>	<b>33.4357</b>	<b>33.4357</b>	<b>0.0108</b>	<b>0.0000</b>	<b>33.7060</b>

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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	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	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	0.0000
Worker	5.8000e-004	4.3000e-004	4.8700e-003	1.0000e-005	1.3400e-003	1.0000e-005	1.3500e-003	3.6000e-004	1.0000e-005	3.7000e-004	0.0000	1.2225	1.2225	4.0000e-005	0.0000	1.2234	0.0000
<b>Total</b>	<b>5.8000e-004</b>	<b>4.3000e-004</b>	<b>4.8700e-003</b>	<b>1.0000e-005</b>	<b>1.3400e-003</b>	<b>1.0000e-005</b>	<b>1.3500e-003</b>	<b>3.6000e-004</b>	<b>1.0000e-005</b>	<b>3.7000e-004</b>	<b>0.0000</b>	<b>1.2225</b>	<b>1.2225</b>	<b>4.0000e-005</b>	<b>0.0000</b>	<b>1.2234</b>	<b>0.0000</b>

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	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	0.0796	0.8816	0.5867	1.1800e-003	0.0377	0.0377	0.0377	0.0347	0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
<b>Total</b>	<b>0.0796</b>	<b>0.8816</b>	<b>0.5867</b>	<b>1.1800e-003</b>	<b>0.1741</b>	<b>0.0377</b>	<b>0.2118</b>	<b>0.0693</b>	<b>0.0347</b>	<b>0.1040</b>	<b>0.0000</b>	<b>103.5405</b>	<b>103.5405</b>	<b>0.0335</b>	<b>0.0000</b>	<b>104.3776</b>

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**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	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8500e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
<b>Total</b>	<b>1.2200e-003</b>	<b>9.0000e-004</b>	<b>0.0103</b>	<b>3.0000e-005</b>	<b>2.8300e-003</b>	<b>2.0000e-005</b>	<b>2.8500e-003</b>	<b>7.5000e-004</b>	<b>2.0000e-005</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>2.5808</b>	<b>2.5808</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.5828</b>

**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					0.1741	0.0000	0.1741	0.0693	0.0000	0.0693	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0796	0.8816	0.5867	1.1800e-003	0.0377	0.0377	0.0377	0.0347	0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
<b>Total</b>	<b>0.0796</b>	<b>0.8816</b>	<b>0.5867</b>	<b>1.1800e-003</b>	<b>0.1741</b>	<b>0.0377</b>	<b>0.2118</b>	<b>0.0693</b>	<b>0.0347</b>	<b>0.1040</b>	<b>0.0000</b>	<b>103.5403</b>	<b>103.5403</b>	<b>0.0335</b>	<b>0.0000</b>	<b>104.3775</b>

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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	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8500e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
<b>Total</b>	<b>1.2200e-003</b>	<b>9.0000e-004</b>	<b>0.0103</b>	<b>3.0000e-005</b>	<b>2.8300e-003</b>	<b>2.0000e-005</b>	<b>2.8500e-003</b>	<b>7.5000e-004</b>	<b>2.0000e-005</b>	<b>7.8000e-004</b>	<b>0.0000</b>	<b>2.5808</b>	<b>2.5808</b>	<b>8.0000e-005</b>	<b>0.0000</b>	<b>2.5828</b>

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	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	5.7200e-003	5.2600e-003	5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
<b>Total</b>	<b>0.0127</b>	<b>0.1360</b>	<b>0.1017</b>	<b>2.2000e-004</b>	<b>0.0807</b>	<b>5.7200e-003</b>	<b>0.0865</b>	<b>0.0180</b>	<b>5.2600e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>19.0871</b>	<b>19.0871</b>	<b>6.1700e-003</b>	<b>0.0000</b>	<b>19.2414</b>

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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	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
<b>Total</b>	<b>2.1000e-004</b>	<b>1.5000e-004</b>	<b>1.7400e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4587</b>	<b>0.4587</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4590</b>

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	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
<b>Total</b>	<b>0.0127</b>	<b>0.1360</b>	<b>0.1017</b>	<b>2.2000e-004</b>	<b>0.0807</b>	<b>5.7200e-003</b>	<b>0.0865</b>	<b>0.0180</b>	<b>5.2600e-003</b>	<b>0.0233</b>	<b>0.0000</b>	<b>19.0871</b>	<b>19.0871</b>	<b>6.1700e-003</b>	<b>0.0000</b>	<b>19.2414</b>

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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	2.1000e-004	1.5000e-004	1.7400e-003	1.0000e-005	5.2000e-004	0.0000	5.3000e-004	1.4000e-004	0.0000	1.4000e-004	0.0000	0.4587	0.4587	1.0000e-005	0.0000	0.4590
<b>Total</b>	<b>2.1000e-004</b>	<b>1.5000e-004</b>	<b>1.7400e-003</b>	<b>1.0000e-005</b>	<b>5.2000e-004</b>	<b>0.0000</b>	<b>5.3000e-004</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>1.4000e-004</b>	<b>0.0000</b>	<b>0.4587</b>	<b>0.4587</b>	<b>1.0000e-005</b>	<b>0.0000</b>	<b>0.4590</b>

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
<b>Total</b>	<b>0.2158</b>	<b>1.9754</b>	<b>2.0700</b>	<b>3.4100e-003</b>		<b>0.1023</b>	<b>0.1023</b>		<b>0.0963</b>	<b>0.0963</b>	<b>0.0000</b>	<b>293.1324</b>	<b>293.1324</b>	<b>0.0702</b>	<b>0.0000</b>	<b>294.8881</b>

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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	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	1.6961	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	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
<b>Total</b>	<b>0.3578</b>	<b>1.9125</b>	<b>2.9612</b>	<b>0.0119</b>	<b>0.8696</b>	<b>9.4100e-003</b>	<b>0.8790</b>	<b>0.2336</b>	<b>8.7800e-003</b>	<b>0.2424</b>	<b>0.0000</b>	<b>1,106.9771</b>	<b>1,106.9771</b>	<b>0.0451</b>	<b>0.0000</b>	<b>1,107.1039</b>

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					
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
<b>Total</b>	<b>0.2158</b>	<b>1.9754</b>	<b>2.0700</b>	<b>3.4100e-003</b>		<b>0.1023</b>	<b>0.1023</b>		<b>0.0963</b>	<b>0.0963</b>	<b>0.0000</b>	<b>293.1321</b>	<b>293.1321</b>	<b>0.0702</b>	<b>0.0000</b>	<b>294.8877</b>

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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	0.0527	1.6961	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	0.2164	2.5233	7.3500e-003	0.7557	6.2300e-003	0.7619	0.2007	5.7400e-003	0.2065	0.0000	663.9936	663.9936	0.0187	0.0000	664.4604
<b>Total</b>	<b>0.3578</b>	<b>1.9125</b>	<b>2.9612</b>	<b>0.0119</b>	<b>0.8696</b>	<b>9.4100e-003</b>	<b>0.8790</b>	<b>0.2336</b>	<b>8.7800e-003</b>	<b>0.2424</b>	<b>0.0000</b>	<b>1,106.9771</b>	<b>1,106.9771</b>	<b>0.0451</b>	<b>0.0000</b>	<b>1,107.1039</b>

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	NBio- 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
<b>Total</b>	<b>0.1942</b>	<b>1.7765</b>	<b>2.0061</b>	<b>3.3300e-003</b>		<b>0.0864</b>	<b>0.0864</b>		<b>0.0813</b>	<b>0.0813</b>	<b>0.0000</b>	<b>286.2789</b>	<b>286.2789</b>	<b>0.0681</b>	<b>0.0000</b>	<b>287.9814</b>

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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	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	0.0382	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	624.9466
<b>Total</b>	<b>0.3177</b>	<b>1.4420</b>	<b>2.6646</b>	<b>0.0112</b>	<b>0.8490</b>	<b>7.3700e-003</b>	<b>0.8564</b>	<b>0.2281</b>	<b>6.8600e-003</b>	<b>0.2349</b>	<b>0.0000</b>	<b>1,042.5294</b>	<b>1,042.5294</b>	<b>0.0392</b>	<b>0.0000</b>	<b>1,043.5990</b>

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					
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	0.0681	0.0000	287.9811
<b>Total</b>	<b>0.1942</b>	<b>1.7765</b>	<b>2.0061</b>	<b>3.3300e-003</b>		<b>0.0864</b>	<b>0.0864</b>		<b>0.0813</b>	<b>0.0813</b>	<b>0.0000</b>	<b>286.2785</b>	<b>286.2785</b>	<b>0.0681</b>	<b>0.0000</b>	<b>287.9811</b>

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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	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	624.9466
<b>Total</b>	<b>0.3177</b>	<b>1.4420</b>	<b>2.6646</b>	<b>0.0112</b>	<b>0.8490</b>	<b>7.3700e-003</b>	<b>0.8564</b>	<b>0.2281</b>	<b>6.8600e-003</b>	<b>0.2349</b>	<b>0.0000</b>	<b>1,042.5294</b>	<b>1,042.5294</b>	<b>0.0392</b>	<b>0.0000</b>	<b>1,043.5990</b>

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	tons/yr										MT/yr					
Off-Road	6.7100e-003	0.0663	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
<b>Total</b>	<b>6.7100e-003</b>	<b>0.0663</b>	<b>0.0948</b>	<b>1.5000e-004</b>		<b>3.3200e-003</b>	<b>3.3200e-003</b>		<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>0.0000</b>	<b>13.0175</b>	<b>13.0175</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1227</b>

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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	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	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160
<b>Total</b>	<b>2.8000e-004</b>	<b>1.9000e-004</b>	<b>2.2300e-003</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.9000e-004</b>	<b>1.0000e-005</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6156</b>	<b>0.6156</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6160</b>

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					
Off-Road	6.7100e-003	0.0663	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
<b>Total</b>	<b>6.7100e-003</b>	<b>0.0663</b>	<b>0.0948</b>	<b>1.5000e-004</b>		<b>3.3200e-003</b>	<b>3.3200e-003</b>		<b>3.0500e-003</b>	<b>3.0500e-003</b>	<b>0.0000</b>	<b>13.0175</b>	<b>13.0175</b>	<b>4.2100e-003</b>	<b>0.0000</b>	<b>13.1227</b>

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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	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	0.0000
Worker	2.8000e-004	1.9000e-004	2.2300e-003	1.0000e-005	7.3000e-004	1.0000e-005	7.3000e-004	1.9000e-004	1.0000e-005	2.0000e-004	0.0000	0.6156	0.6156	2.0000e-005	0.0000	0.6160	0.6160
<b>Total</b>	<b>2.8000e-004</b>	<b>1.9000e-004</b>	<b>2.2300e-003</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.0000e-005</b>	<b>7.3000e-004</b>	<b>1.9000e-004</b>	<b>1.0000e-005</b>	<b>2.0000e-004</b>	<b>0.0000</b>	<b>0.6156</b>	<b>0.6156</b>	<b>2.0000e-005</b>	<b>0.0000</b>	<b>0.6160</b>	<b>0.6160</b>

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	tons/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	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	0.0000
<b>Total</b>	<b>0.0109</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>	<b>5.1500e-003</b>	<b>5.1500e-003</b>	<b>5.1500e-003</b>	<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>	<b>22.2073</b>

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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	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
<b>Total</b>	<b>4.4000e-004</b>	<b>2.9000e-004</b>	<b>3.5100e-003</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>1.0000e-005</b>	<b>1.2400e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.0094</b>	<b>1.0094</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0100</b>

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					
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
<b>Total</b>	<b>0.0109</b>	<b>0.1048</b>	<b>0.1609</b>	<b>2.5000e-004</b>	<b>5.1500e-003</b>	<b>5.1500e-003</b>	<b>5.1500e-003</b>	<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>4.7400e-003</b>	<b>0.0000</b>	<b>22.0292</b>	<b>22.0292</b>	<b>7.1200e-003</b>	<b>0.0000</b>	<b>22.2073</b>

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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	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
<b>Total</b>	<b>4.4000e-004</b>	<b>2.9000e-004</b>	<b>3.5100e-003</b>	<b>1.0000e-005</b>	<b>1.2300e-003</b>	<b>1.0000e-005</b>	<b>1.2400e-003</b>	<b>3.3000e-004</b>	<b>1.0000e-005</b>	<b>3.4000e-004</b>	<b>0.0000</b>	<b>1.0094</b>	<b>1.0094</b>	<b>3.0000e-005</b>	<b>0.0000</b>	<b>1.0100</b>

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	NBio- 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	1.0700e-003	1.0700e-003	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
<b>Total</b>	<b>4.1404</b>	<b>0.0213</b>	<b>0.0317</b>	<b>5.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>4.4682</b>	<b>4.4682</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>4.4745</b>

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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	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	7.4800e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	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
<b>Total</b>	<b>7.4800e-003</b>	<b>4.9300e-003</b>	<b>0.0596</b>	<b>1.9000e-004</b>	<b>0.0209</b>	<b>1.6000e-004</b>	<b>0.0211</b>	<b>5.5500e-003</b>	<b>1.5000e-004</b>	<b>5.7000e-003</b>	<b>0.0000</b>	<b>17.1287</b>	<b>17.1287</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>17.1394</b>

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					
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
<b>Total</b>	<b>4.1404</b>	<b>0.0213</b>	<b>0.0317</b>	<b>5.0000e-005</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>1.0700e-003</b>	<b>0.0000</b>	<b>4.4682</b>	<b>4.4682</b>	<b>2.5000e-004</b>	<b>0.0000</b>	<b>4.4745</b>

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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	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	7.4500e-003	4.9300e-003	0.0596	1.9000e-004	0.0209	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
<b>Total</b>	<b>7.4500e-003</b>	<b>4.9300e-003</b>	<b>0.0596</b>	<b>1.9000e-004</b>	<b>0.0209</b>	<b>1.6000e-004</b>	<b>0.0211</b>	<b>5.5500e-003</b>	<b>1.5000e-004</b>	<b>5.7000e-003</b>	<b>0.0000</b>	<b>17.1287</b>	<b>17.1287</b>	<b>4.3000e-004</b>	<b>0.0000</b>	<b>17.1394</b>

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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
	tons/yr										MT/yr					
Mitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620,498.6	7,620,498.6	0.3407	0.0000	7,629,016.2
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620,498.6	7,620,498.6	0.3407	0.0000	7,629,016.2

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	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	2817.72	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
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

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-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down)	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	16.30	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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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
	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512,646.5	2,512,646.5	0.1037	0.0215	2,521,635.6
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512,646.5	2,512,646.5	0.1037	0.0215	2,521,635.6
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383,426.7	1,383,426.7	0.0265	0.0254	1,391,647.8
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383,426.7	1,383,426.7	0.0265	0.0254	1,391,647.8

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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
Land Use	kBTU/yr	tons/yr										MT/yr					
Apartments Low Rise	408494	2.200e-003	0.0188	8.0100e-003	1.200e-004		1.520e-003	1.520e-003		1.520e-003	1.520e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.530e-003	0.0230	0.0193	1.4000e-004		1.750e-003	1.750e-003		1.750e-003	1.750e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
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	8.1300e-003	445.9468
Hotel	1.74095e+006	9.390e-003	0.0853	0.0717	5.1000e-004		6.490e-003	6.490e-003		6.490e-003	6.490e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.950e-003	0.0905	0.0760	5.4000e-004		6.880e-003	6.880e-003		6.880e-003	6.880e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.000e-004	4.5000e-003	3.7600e-003	3.0000e-005		3.400e-004	3.400e-004		3.400e-004	3.400e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
<b>Total</b>		<b>0.1398</b>	<b>1.2312</b>	<b>0.7770</b>	<b>7.6200e-003</b>		<b>0.0966</b>	<b>0.0966</b>		<b>0.0966</b>	<b>0.0966</b>	<b>0.0000</b>	<b>1,383.4268</b>	<b>1,383.4268</b>	<b>0.0265</b>	<b>0.0254</b>	<b>1,391.6478</b>

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

5.2 Energy by Land Use - Natural Gas

Mitigated

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
		tons/yr										MT/yr					
Apartments Low Rise	408494	2.200e-003	0.0188	8.0100e-003	1.200e-004		1.520e-003	1.520e-003		1.520e-003	1.520e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+007	0.0704	0.6018	0.2561	3.8400e-003		0.0487	0.0487		0.0487	0.0487	0.0000	696.9989	696.9989	0.0134	0.0128	701.1408
General Office Building	468450	2.530e-003	0.0230	0.0193	1.4000e-004		1.750e-003	1.750e-003		1.750e-003	1.750e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-004	25.1468
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	8.1300e-003	445.9468
Hotel	1.74095e+006	9.390e-003	0.0853	0.0717	5.1000e-004		6.490e-003	6.490e-003		6.490e-003	6.490e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.950e-003	0.0905	0.0760	5.4000e-004		6.880e-003	6.880e-003		6.880e-003	6.880e-003	0.0000	98.5139	98.5139	1.8900e-003	1.8100e-003	99.0993
Regional Shopping Center	91840	5.000e-004	4.5000e-003	3.7600e-003	3.0000e-005		3.400e-004	3.400e-004		3.400e-004	3.400e-004	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
<b>Total</b>		<b>0.1398</b>	<b>1.2312</b>	<b>0.7770</b>	<b>7.6200e-003</b>		<b>0.0966</b>	<b>0.0966</b>		<b>0.0966</b>	<b>0.0966</b>	<b>0.0000</b>	<b>1,383.4268</b>	<b>1,383.4268</b>	<b>0.0265</b>	<b>0.0254</b>	<b>1,391.6478</b>

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

5.3 Energy by Land Use - Electricity

Unmitigated

Land Use	Electricity Use kWh/yr	Total CO2	CH4	N2O	CO2e
		MT/yr			
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	508.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	758000	240.8778	9.9400e-003	2.0500e-003	241.7395
<b>Total</b>		<b>2,512.6465</b>	<b>0.1037</b>	<b>0.0215</b>	<b>2,521.6356</b>

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

5.3 Energy by Land Use - Electricity

Mitigated

Land Use	Electricity Use kWh/yr	Total CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e MT/yr
Apartments Low Rise	106010	33.7770	1.3900e-003	2.9000e-004	33.8978
Apartments Mid Rise	3.94697e+006	1,257.5879	0.0519	0.0107	1,262.0869
General Office Building	584550	186.2502	7.6900e-003	1.5900e-003	186.9165
High Turnover (Sit Down Restaurant)	1.58904e+006	508.3022	0.0209	4.3200e-003	508.1135
Hotel	550308	175.3399	7.2400e-003	1.5000e-003	175.9672
Quality Restaurant	353120	112.5116	4.6500e-003	9.6000e-004	112.9141
Regional Shopping Center	758000	240.8778	9.9400e-003	2.0500e-003	241.7395
<b>Total</b>		<b>2,512.6465</b>	<b>0.1037</b>	<b>0.0215</b>	<b>2,521.6356</b>

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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	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	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
<b>Total</b>	<b>5.1437</b>	<b>0.2950</b>	<b>10.3804</b>	<b>1.6600e-003</b>		<b>0.0714</b>	<b>0.0714</b>		<b>0.0714</b>	<b>0.0714</b>	<b>0.0000</b>	<b>220.9670</b>	<b>220.9670</b>	<b>0.0201</b>	<b>3.7400e-003</b>	<b>222.5835</b>

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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
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	204.1166	204.1166	3.9100e-003	3.7400e-003	205.3295
Landscaping	0.3096	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
<b>Total</b>	<b>5.1437</b>	<b>0.2950</b>	<b>10.3804</b>	<b>1.6600e-003</b>		<b>0.0714</b>	<b>0.0714</b>		<b>0.0714</b>	<b>0.0714</b>	<b>0.0000</b>	<b>220.9670</b>	<b>220.9670</b>	<b>0.0201</b>	<b>3.7400e-003</b>	<b>222.5835</b>

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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	885.8052	3.0183	0.0755	683.7567
Unmitigated	885.8052	3.0183	0.0755	683.7567

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

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0465	425.4719	2.0867	0.0523	493.2363
General Office Bulking	7.99602 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42627 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
<b>Total</b>		<b>686.8052</b>	<b>3.0183</b>	<b>0.0755</b>	<b>683.7567</b>

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

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Apartments Low Rise	1.62885 / 1.02688	10.9095	0.0535	1.3400e-003	12.6471
Apartments Mid Rise	63.5252 / 40.0465	425.4719	2.0867	0.0523	493.2363
General Office Building	7.99602 / 4.90201	53.0719	0.2627	6.5900e-003	61.6019
High Turnover (Sit Down Restaurant)	10.9272 / 0.697482	51.2702	0.3580	8.8200e-003	62.8482
Hotel	1.26834 / 0.140927	6.1633	0.0416	1.0300e-003	7.5079
Quality Restaurant	2.42627 / 0.154996	11.3934	0.0796	1.9600e-003	13.9663
Regional Shopping Center	4.14806 / 2.54236	27.5250	0.1363	3.4200e-003	31.9490
<b>Total</b>		<b>686.8062</b>	<b>3.0183</b>	<b>0.0755</b>	<b>683.7567</b>

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

**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	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
<b>Total</b>		<b>207.8079</b>	<b>12.2811</b>	<b>0.0000</b>	<b>514.8354</b>

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

**8.2 Waste by Land Use**

Mitigated

Land Use	Waste Disposed Tons	Total CO2 MT/yr	CH4 MT/yr	N2O MT/yr	CO2e 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	41.85	8.4952	0.5021	0.0000	21.0464
High Turnover (Sit Down Restaurant)	428.4	86.9613	5.1393	0.0000	215.4430
Hotel	27.38	5.5579	0.3285	0.0000	13.7694
Quality Restaurant	7.3	1.4818	0.0876	0.0000	3.6712
Regional Shopping Center	58.8	11.9359	0.7054	0.0000	29.5706
<b>Total</b>		<b>207.8079</b>	<b>12.2811</b>	<b>0.0000</b>	<b>514.8354</b>

**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	72,600.00	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	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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

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

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.85
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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2.0 Emissions Summary

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated 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
	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	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7196	0.0000	2,331.0956
Maximum	237.0219	46.4415	40.8776	0.1240	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707

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

2.1 Overall Construction (Maximum Daily Emission)

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
	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	6,163.4166	6,163.4166	1.9475	0.0000	6,212.1039
2022	4.5441	38.8811	40.8776	0.1240	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
2023	4.1534	25.7658	38.7457	0.1206	7.0088	0.7592	7.7679	1.8799	0.7136	2.5935	0.0000	12,150.4890	12,150.4890	0.9589	0.0000	12,174.4615
2024	237.0219	9.5478	14.9642	0.0239	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,313.1808	2,313.1808	0.7196	0.0000	2,331.0955
Maximum	237.0219	46.4415	40.8776	0.1240	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	12,493.4403	12,493.4403	1.9485	0.0000	12,518.5707
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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	18,259.11 92
Energy	0.7660	6.7462	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
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
<b>Total</b>	<b>41.1168</b>	<b>67.2262</b>	<b>207.5497</b>	<b>0.6278</b>	<b>45.9592</b>	<b>2.4626</b>	<b>48.4217</b>	<b>12.2950</b>	<b>2.4385</b>	<b>14.7336</b>	<b>0.0000</b>	<b>76,811.18 16</b>	<b>76,811.18 16</b>	<b>2.8282</b>	<b>0.4832</b>	<b>77,025.87 86</b>

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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.59 50	18,148.59 50	0.4874	0.3300	18,259.11 92
Energy	0.7660	6.7462	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
Mobile	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.60 34	50,306.60 34	2.1807		50,361.12 08
<b>Total</b>	<b>41.1168</b>	<b>67.2262</b>	<b>207.5497</b>	<b>0.6278</b>	<b>45.9592</b>	<b>2.4626</b>	<b>48.4217</b>	<b>12.2950</b>	<b>2.4385</b>	<b>14.7336</b>	<b>0.0000</b>	<b>76,811.18 16</b>	<b>76,811.18 16</b>	<b>2.8282</b>	<b>0.4832</b>	<b>77,025.87 86</b>

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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	

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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	48	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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**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	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			3,747.9449	3,747.9449	1.0549	3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>			<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>	<b>3,774.3174</b>

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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	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1273	4.0952	0.9602	0.0119	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292,241.3	1,292,241.3	0.0877		1,294,433.7
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	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117,2799	117,2799	3.5200e-003		117,3678
<b>Total</b>	<b>0.1760</b>	<b>4.1265</b>	<b>1.3884</b>	<b>0.0131</b>	<b>0.3810</b>	<b>0.0135</b>	<b>0.3946</b>	<b>0.1034</b>	<b>0.0129</b>	<b>0.1163</b>		<b>1,408,521.2</b>	<b>1,408,521.2</b>	<b>0.0912</b>		<b>1,411,801.5</b>

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
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>	<b>0.0000</b>	<b>3,747,944.9</b>	<b>3,747,944.9</b>	<b>1.0549</b>		<b>3,774,317.4</b>

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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	0.2669	0.0126	0.2795	0.0732	0.0120	0.0852		1,292,241.3	1,292,241.3	0.0877		1,294,433.7
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	0.0487	0.0313	0.4282	1.1800e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		117,2799	117,2799	3.5200e-003		117,3678
<b>Total</b>	<b>0.1760</b>	<b>4.1265</b>	<b>1.3884</b>	<b>0.0131</b>	<b>0.3810</b>	<b>0.0135</b>	<b>0.3946</b>	<b>0.1034</b>	<b>0.0129</b>	<b>0.1163</b>		<b>1,408,521.2</b>	<b>1,408,521.2</b>	<b>0.0912</b>		<b>1,411,801.5</b>

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		3,685,656.9	3,685,656.9	1.1920		3,715,457.3
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685,656.9</b>	<b>3,685,656.9</b>	<b>1.1920</b>		<b>3,715,457.3</b>

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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	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	0.0584	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
<b>Total</b>	<b>0.0584</b>	<b>0.0375</b>	<b>0.5139</b>	<b>1.4100e-003</b>	<b>0.1369</b>	<b>1.1400e-003</b>	<b>0.1381</b>	<b>0.0363</b>	<b>1.0500e-003</b>	<b>0.0374</b>		<b>140.7359</b>	<b>140.7359</b>	<b>4.2200e-003</b>		<b>140.8414</b>

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
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

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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	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	0.0584	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	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		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	0.0649	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
<b>Total</b>	<b>0.0649</b>	<b>0.0417</b>	<b>0.5710</b>	<b>1.5700e-003</b>	<b>0.1521</b>	<b>1.2700e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1700e-003</b>	<b>0.0415</b>		<b>156.3732</b>	<b>156.3732</b>	<b>4.6900e-003</b>		<b>156.4904</b>

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
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

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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	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	0.0649	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
<b>Total</b>	<b>0.0649</b>	<b>0.0417</b>	<b>0.5710</b>	<b>1.5700e-003</b>	<b>0.1521</b>	<b>1.2700e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1700e-003</b>	<b>0.0415</b>		<b>156.3732</b>	<b>156.3732</b>	<b>4.6900e-003</b>		<b>156.4904</b>

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	3.5965	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
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

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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	0.0607	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
<b>Total</b>	<b>0.0607</b>	<b>0.0376</b>	<b>0.5263</b>	<b>1.5100e-003</b>	<b>0.1521</b>	<b>1.2300e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1300e-003</b>	<b>0.0415</b>		<b>150.8754</b>	<b>150.8754</b>	<b>4.2400e-003</b>		<b>150.9813</b>

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	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
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

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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	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	0.0607	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
<b>Total</b>	<b>0.0607</b>	<b>0.0376</b>	<b>0.5263</b>	<b>1.5100e-003</b>	<b>0.1521</b>	<b>1.2300e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1300e-003</b>	<b>0.0415</b>		<b>150.8754</b>	<b>150.8754</b>	<b>4.2400e-003</b>		<b>150.9813</b>

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	lb/day										lb/day					
Off-Road	1.7062	15.6156	16.3634	0.0269		0.8090	0.8090		0.7612	0.7612		2,554.3336	2,554.3336	0.6120		2,569.6322
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>		<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

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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	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	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5482	0.2236		3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697		6,046.8000
<b>Total</b>	<b>2.8378</b>	<b>14.7106</b>	<b>24.5142</b>	<b>0.0971</b>	<b>7.0087</b>	<b>0.0741</b>	<b>7.0828</b>	<b>1.8799</b>	<b>0.0691</b>	<b>1.9490</b>		<b>9,939.1067</b>	<b>9,939.1067</b>	<b>0.3933</b>		<b>9,948.9384</b>

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	1.7062	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
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

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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	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	0.4079	13.2032	3.4341	0.0364	0.9155	0.0248	0.9404	0.2636	0.0237	0.2873		3,896.5482	3,896.5484	0.2236			3,902.1384
Worker	2.4299	1.5074	21.0801	0.0607	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		6,042.5585	6,042.5585	0.1697			6,046.8000
Total	2.8378	14.7106	24.5142	0.0971	7.0067	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	NBio- 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			2,570.4061
Total	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584		2,555.2099	2,555.2099	0.6079			2,570.4061

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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	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	0.9156	0.0116	0.9271	0.2636	0.0111	0.2747		3,773.8762	3,773.8764	0.1982		3,778.8300
Worker	2.2780	1.3628	19.4002	0.0584	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529		5,825.2254
<b>Total</b>	<b>2.5807</b>	<b>11.3809</b>	<b>22.5017</b>	<b>0.0936</b>	<b>7.0088</b>	<b>0.0595</b>	<b>7.0682</b>	<b>1.8799</b>	<b>0.0552</b>	<b>1.9350</b>		<b>9,595.2790</b>	<b>9,595.2790</b>	<b>0.3511</b>		<b>9,604.0554</b>

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555.2099	2,555.2099	0.6079		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

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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	0.9156	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	0.0479	6.1411	1.6163	0.0441	1.6604		5,821.4028	5,821.4028	0.1529			5,825.2254
<b>Total</b>	<b>2.5807</b>	<b>11.3809</b>	<b>22.5017</b>	<b>0.0936</b>	<b>7.0088</b>	<b>0.0595</b>	<b>7.0682</b>	<b>1.8799</b>	<b>0.0552</b>	<b>1.9350</b>		<b>9,595.2790</b>	<b>9,595.2790</b>	<b>0.3511</b>			<b>9,604.0554</b>

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
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>			<b>2,225.4336</b>

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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	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	0.0427	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		109.0866
<b>Total</b>	<b>0.0427</b>	<b>0.0255</b>	<b>0.3633</b>	<b>1.0900e-003</b>	<b>0.1141</b>	<b>9.0000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.3000e-004</b>	<b>0.0311</b>		<b>109.0150</b>	<b>109.0150</b>	<b>2.8600e-003</b>		<b>109.0866</b>

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
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>		<b>2,225.4336</b>

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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	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	0.0427	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			109.0866
<b>Total</b>	<b>0.0427</b>	<b>0.0255</b>	<b>0.3633</b>	<b>1.0900e-003</b>	<b>0.1141</b>	<b>9.0000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.3000e-004</b>	<b>0.0311</b>		<b>109.0150</b>	<b>109.0150</b>	<b>2.8600e-003</b>			<b>109.0866</b>

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	0.9882	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
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>			<b>2,225.3963</b>

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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	0.0403	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
<b>Total</b>	<b>0.0403</b>	<b>0.0233</b>	<b>0.3384</b>	<b>1.0600e-003</b>	<b>0.1141</b>	<b>8.8000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.1000e-004</b>	<b>0.0311</b>		<b>105.6336</b>	<b>105.6336</b>	<b>2.6300e-003</b>			<b>105.6992</b>

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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140			2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000							0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>	<b>0.0000</b>	<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>			<b>2,225.3963</b>

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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	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	0.0403	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
<b>Total</b>	<b>0.0403</b>	<b>0.0233</b>	<b>0.3384</b>	<b>1.0600e-003</b>	<b>0.1141</b>	<b>8.8000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.1000e-004</b>	<b>0.0311</b>		<b>105.6336</b>	<b>105.6336</b>	<b>2.6300e-003</b>			<b>105.6992</b>

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	NBio- 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
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>			<b>281.8443</b>

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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	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	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280			1,127.4583
<b>Total</b>	<b>0.4296</b>	<b>0.2481</b>	<b>3.6098</b>	<b>0.0113</b>	<b>1.2171</b>	<b>9.4300e-003</b>	<b>1.2266</b>	<b>0.3229</b>	<b>8.6800e-003</b>	<b>0.3315</b>		<b>1,126.7583</b>	<b>1,126.7583</b>	<b>0.0280</b>			<b>1,127.4583</b>

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					0.0000	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	0.0000	281.4481	281.4481	0.0159			281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>			<b>281.8443</b>

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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	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,126.7583	1,126.7583	0.0280		1,127.4583
<b>Total</b>	<b>0.4296</b>	<b>0.2481</b>	<b>3.6098</b>	<b>0.0113</b>	<b>1.2171</b>	<b>9.4300e-003</b>	<b>1.2266</b>	<b>0.3229</b>	<b>8.6800e-003</b>	<b>0.3315</b>		<b>1,126.7583</b>	<b>1,126.7583</b>	<b>0.0280</b>		<b>1,127.4583</b>

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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
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070	50,306.60	34	50,306.60	34	2.1807	50,361.12
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070	50,306.60	34	50,306.60	34	2.1807	50,361.12

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	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	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
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

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-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	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	16.30	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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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	0.7660	6.7462	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	0.7660	6.7462	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
		lb/day										lb/day					
Apartments Low Rise	1119.16	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	131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486	
Apartments Mid Rise	35784.3	0.3859	3.2978	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	4,234.9339	
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	9.5600e-003	9.5600e-003	150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884	
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460	
Hotel	4769.72	0.0514	0.4676	0.3928	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	5057.75	0.0545	0.4959	0.4165	2.6900e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0296	595.0296	0.0114	0.0109	598.5658	
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	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778	
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>	

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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 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
		lb/day										lb/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	131.6662	131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486
Apartments Mid Rise	35.7843	0.3859	3.2978	1.4033	0.0211	0.2666	0.2666	0.2666	0.2666	0.2666	0.2666	4,209.9164	4,209.9164	4,209.9164	0.0807	0.0772	4,234.9339
General Office Building	1.28342	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	150.9911	2.8900e-003	2.7700e-003	151.8884
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	2,677.6342	2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460
Hotel	4.76972	0.0514	0.4676	0.3928	2.8100e-003	0.0355	0.0355	0.0355	0.0355	0.0355	0.0355	561.1436	561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.6900e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0296	595.0296	595.0296	0.0114	0.0109	598.5658
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	29.6019	5.7000e-004	5.4000e-004	29.7778
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>		<b>0.5292</b>	<b>0.5292</b>		<b>0.5292</b>	<b>0.5292</b>		<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>

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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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	1.6500	14.1000	6.0000	0.0900		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		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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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	2.2670					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	1.6500	14.1000	6.0000	0.0900		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		148.5950	148.5950	0.1424		162.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

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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**

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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	72,600.00	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	2789
Regional Shopping Center	56.00	1000sqft	1.29	56,000.00	0

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**1.2 Other Project Characteristics**

<b>Urbanization</b>	Urban	<b>Wind Speed (m/s)</b>	2.2	<b>Precipitation Freq (Days)</b>	33
<b>Climate Zone</b>	9			<b>Operational Year</b>	2028
<b>Utility Company</b>	Southern California Edison				
<b>CO2 Intensity (lb/MWhr)</b>	702.44	<b>CH4 Intensity (lb/MWhr)</b>	0.029	<b>N2O Intensity (lb/MWhr)</b>	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

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

tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	6.07	6.16
tblVehicleTrips	SU_TR	5.86	4.18
tblVehicleTrips	SU_TR	1.05	0.69
tblVehicleTrips	SU_TR	131.84	78.27
tblVehicleTrips	SU_TR	5.95	3.20
tblVehicleTrips	SU_TR	72.16	57.85
tblVehicleTrips	SU_TR	25.24	6.39
tblVehicleTrips	WD_TR	6.59	5.83
tblVehicleTrips	WD_TR	6.65	4.13
tblVehicleTrips	WD_TR	11.03	6.41
tblVehicleTrips	WD_TR	127.15	65.80
tblVehicleTrips	WD_TR	8.17	3.84
tblVehicleTrips	WD_TR	89.95	62.64
tblVehicleTrips	WD_TR	42.70	9.43
tblWoodstoves	NumberCatalytic	1.25	0.00
tblWoodstoves	NumberCatalytic	48.75	0.00
tblWoodstoves	NumberNoncatalytic	1.25	0.00
tblWoodstoves	NumberNoncatalytic	48.75	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveDayYear	25.00	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00
tblWoodstoves	WoodstoveWoodMass	999.60	0.00

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2.0 Emissions Summary

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

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated 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
	lb/day										lb/day					
2021	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7956	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
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

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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	4.2621	46.4460	31.4068	0.0635	18.2032	2.0456	20.2488	9.9670	1.8820	11.8490	0.0000	6,154.3377	6,154.3377	1.9472	0.0000	6,203.0186
2022	4.7966	38.8851	39.6338	0.1195	8.8255	1.6361	10.4616	3.6369	1.5052	5.1421	0.0000	12,035.3440	12,035.3440	1.9482	0.0000	12,060.6013
2023	4.3939	25.8648	37.5031	0.1162	7.0088	0.7598	7.7685	1.8799	0.7142	2.5940	0.0000	11,710.4080	11,710.4080	0.9617	0.0000	11,734.4497
2024	237.0656	9.5503	14.9372	0.0238	1.2171	0.4694	1.2875	0.3229	0.4319	0.4621	0.0000	2,307.0517	2,307.0517	0.7164	0.0000	2,324.9627
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
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, 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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	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
<b>Total</b>	<b>40.7912</b>	<b>67.7872</b>	<b>202.7424</b>	<b>0.6043</b>	<b>45.9592</b>	<b>2.4640</b>	<b>48.4231</b>	<b>12.2950</b>	<b>2.4399</b>	<b>14.7349</b>	<b>0.0000</b>	<b>74,422.3787</b>	<b>74,422.3787</b>	<b>2.8429</b>	<b>0.4832</b>	<b>74,637.4417</b>

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	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Energy	0.7660	6.7462	4.2573	0.0418		0.5292	0.5292		0.5292	0.5292		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
Mobile	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
<b>Total</b>	<b>40.7912</b>	<b>67.7872</b>	<b>202.7424</b>	<b>0.6043</b>	<b>45.9592</b>	<b>2.4640</b>	<b>48.4231</b>	<b>12.2950</b>	<b>2.4399</b>	<b>14.7349</b>	<b>0.0000</b>	<b>74,422.3787</b>	<b>74,422.3787</b>	<b>2.8429</b>	<b>0.4832</b>	<b>74,637.4417</b>

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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	

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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	48	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

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**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

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
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			3,747.9449	3,747.9449	1.0549	3,774.3174
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>			<b>3,747.9449</b>	<b>3,747.9449</b>	<b>1.0549</b>	<b>3,774.3174</b>

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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	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269,855.5	1,269,855.5	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	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110,470.7	110,470.7	3.3300e-003		110,553.9
<b>Total</b>	<b>0.1836</b>	<b>4.1800</b>	<b>1.4144</b>	<b>0.0128</b>	<b>0.3810</b>	<b>0.0137</b>	<b>0.3948</b>	<b>0.1034</b>	<b>0.0131</b>	<b>0.1165</b>		<b>1,380,326.2</b>	<b>1,380,326.2</b>	<b>0.0941</b>		<b>1,382,679.1</b>

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
<b>Total</b>	<b>3.1651</b>	<b>31.4407</b>	<b>21.5650</b>	<b>0.0388</b>	<b>3.3074</b>	<b>1.5513</b>	<b>4.8588</b>	<b>0.5008</b>	<b>1.4411</b>	<b>1.9419</b>	<b>0.0000</b>	<b>3,747,944.9</b>	<b>3,747,944.9</b>	<b>1.0549</b>		<b>3,774,317.4</b>

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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	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.1304	4.1454	1.0182	0.0117	0.2669	0.0128	0.2797	0.0732	0.0122	0.0854		1,269,855.5	1,269,855.5	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	0.0346	0.3963	1.1100e-003	0.1141	9.5000e-004	0.1151	0.0303	8.8000e-004	0.0311		110,470.7	110,470.7	3.3300e-003		110,553.9
<b>Total</b>	<b>0.1836</b>	<b>4.1800</b>	<b>1.4144</b>	<b>0.0128</b>	<b>0.3810</b>	<b>0.0137</b>	<b>0.3948</b>	<b>0.1034</b>	<b>0.0131</b>	<b>0.1165</b>		<b>1,380,326.2</b>	<b>1,380,326.2</b>	<b>0.0941</b>		<b>1,382,679.1</b>

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		3,685,656.9	3,685,656.9	1.1920		3,715,457.3
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>		<b>3,685,656.9</b>	<b>3,685,656.9</b>	<b>1.1920</b>		<b>3,715,457.3</b>

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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	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
<b>Total</b>	<b>0.0638</b>	<b>0.0415</b>	<b>0.4755</b>	<b>1.3300e-003</b>	<b>0.1369</b>	<b>1.1400e-003</b>	<b>0.1381</b>	<b>0.0363</b>	<b>1.0500e-003</b>	<b>0.0374</b>		<b>132.5649</b>	<b>132.5649</b>	<b>3.9900e-003</b>		<b>132.6646</b>

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
<b>Total</b>	<b>3.8882</b>	<b>40.4971</b>	<b>21.1543</b>	<b>0.0380</b>	<b>18.0663</b>	<b>2.0445</b>	<b>20.1107</b>	<b>9.9307</b>	<b>1.8809</b>	<b>11.8116</b>	<b>0.0000</b>	<b>3,685.6569</b>	<b>3,685.6569</b>	<b>1.1920</b>		<b>3,715.4573</b>

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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	0.1369	1.1400e-003	0.1381	0.0363	1.0500e-003	0.0374		132.5649	132.5649	3.9900e-003		132.6646
<b>Total</b>	<b>0.0638</b>	<b>0.0415</b>	<b>0.4755</b>	<b>1.3300e-003</b>	<b>0.1369</b>	<b>1.1400e-003</b>	<b>0.1381</b>	<b>0.0363</b>	<b>1.0500e-003</b>	<b>0.0374</b>		<b>132.5649</b>	<b>132.5649</b>	<b>3.9900e-003</b>		<b>132.6646</b>

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	3.5965	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
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>		<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

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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	0.0709	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
<b>Total</b>	<b>0.0709</b>	<b>0.0462</b>	<b>0.5284</b>	<b>1.4800e-003</b>	<b>0.1521</b>	<b>1.2700e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1700e-003</b>	<b>0.0415</b>		<b>147.2943</b>	<b>147.2943</b>	<b>4.4300e-003</b>		<b>147.4051</b>

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
<b>Total</b>	<b>4.1912</b>	<b>46.3998</b>	<b>30.8785</b>	<b>0.0620</b>	<b>8.6733</b>	<b>1.9853</b>	<b>10.6587</b>	<b>3.5965</b>	<b>1.8265</b>	<b>5.4230</b>	<b>0.0000</b>	<b>6,007.0434</b>	<b>6,007.0434</b>	<b>1.9428</b>		<b>6,055.6134</b>

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Con.

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	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	0.0709	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
<b>Total</b>	<b>0.0709</b>	<b>0.0462</b>	<b>0.5284</b>	<b>1.4800e-003</b>	<b>0.1521</b>	<b>1.2700e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1700e-003</b>	<b>0.0415</b>		<b>147.2943</b>	<b>147.2943</b>	<b>4.4300e-003</b>		<b>147.4051</b>

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	3.5965	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
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>		<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

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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	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	0.0665	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
<b>Total</b>	<b>0.0665</b>	<b>0.0416</b>	<b>0.4861</b>	<b>1.4300e-003</b>	<b>0.1521</b>	<b>1.2300e-003</b>	<b>0.1534</b>	<b>0.0404</b>	<b>1.1300e-003</b>	<b>0.0415</b>		<b>142.1207</b>	<b>142.1207</b>	<b>4.0000e-003</b>		<b>142.2207</b>

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	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
<b>Total</b>	<b>3.6248</b>	<b>38.8435</b>	<b>29.0415</b>	<b>0.0621</b>	<b>8.6733</b>	<b>1.6349</b>	<b>10.3082</b>	<b>3.5965</b>	<b>1.5041</b>	<b>5.1006</b>	<b>0.0000</b>	<b>6,011.4105</b>	<b>6,011.4105</b>	<b>1.9442</b>		<b>6,060.0158</b>

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Con.

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	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										9-P Con. 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	0.0665	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	0.0665	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	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.7062	15.6156	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	15.6156	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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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	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	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0750	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
<b>Total</b>	<b>3.0904</b>	<b>14.8350</b>	<b>23.2704</b>	<b>0.0926</b>	<b>7.0067</b>	<b>0.0749</b>	<b>7.0836</b>	<b>1.8799</b>	<b>0.0699</b>	<b>1.9498</b>		<b>9,481.0104</b>	<b>9,481.0104</b>	<b>0.3984</b>		<b>9,480.9691</b>

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Con.

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	1.7062	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
<b>Total</b>	<b>1.7062</b>	<b>15.6156</b>	<b>16.3634</b>	<b>0.0269</b>		<b>0.8090</b>	<b>0.8090</b>		<b>0.7612</b>	<b>0.7612</b>	<b>0.0000</b>	<b>2,554.3336</b>	<b>2,554.3336</b>	<b>0.6120</b>		<b>2,569.6322</b>

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	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	0.4284	13.1673	3.8005	0.0354	0.9155	0.0256	0.9412	0.2636	0.0245	0.2881		3,789.0750	3,789.0754	0.2381		3,795.0283
Worker	2.6620	1.6677	19.4699	0.0571	6.0932	0.0493	6.1425	1.6163	0.0454	1.6617		5,691.9354	5,691.9354	0.1602		5,695.9408
<b>Total</b>	<b>3.0904</b>	<b>14.8350</b>	<b>23.2704</b>	<b>0.0926</b>	<b>7.0067</b>	<b>0.0749</b>	<b>7.0836</b>	<b>1.8799</b>	<b>0.0699</b>	<b>1.9498</b>		<b>9,481.0104</b>	<b>9,481.0104</b>	<b>0.3984</b>		<b>9,480.9691</b>

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	NBio- 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		2,570.4061
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>		<b>2,555.2099</b>	<b>2,555.2099</b>	<b>0.6079</b>		<b>2,570.4061</b>

9-P  
Con.

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	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										9-P Con. 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	0.3183	9.9726	3.3771	0.0343	0.9156	0.0122	0.9277	0.2636	0.0116	0.2752		3,671,400 7	3,671,400 7	0.2096		3,676,641 7
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483,797 4	5,483,797 4	0.1442		5,487,402 0
<b>Total</b>	<b>2.8211</b>	<b>11.4799</b>	<b>21.2591</b>	<b>0.0893</b>	<b>7.0088</b>	<b>0.0601</b>	<b>7.0688</b>	<b>1.8799</b>	<b>0.0567</b>	<b>1.9356</b>		<b>9,155,198 1</b>	<b>9,155,198 1</b>	<b>0.3538</b>		<b>9,164,043 7</b>

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	1.5728	14.3849	16.2440	0.0269		0.6997	0.6997		0.6584	0.6584	0.0000	2,555,209 9	2,555,209 9	0.6079		2,570,406 1
<b>Total</b>	<b>1.5728</b>	<b>14.3849</b>	<b>16.2440</b>	<b>0.0269</b>		<b>0.6997</b>	<b>0.6997</b>		<b>0.6584</b>	<b>0.6584</b>	<b>0.0000</b>	<b>2,555,209 9</b>	<b>2,555,209 9</b>	<b>0.6079</b>		<b>2,570,406 1</b>

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Con.

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	0.3183	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			3,676.6417
Worker	2.5029	1.5073	17.8820	0.0550	6.0932	0.0479	6.1411	1.6163	0.0441	1.6604		5,483.7974	5,483.7974	0.1442			5,487.4020
<b>Total</b>	<b>2.8211</b>	<b>11.4799</b>	<b>21.2591</b>	<b>0.0893</b>	<b>7.0088</b>	<b>0.0601</b>	<b>7.0688</b>	<b>1.8799</b>	<b>0.0557</b>	<b>1.9356</b>		<b>9,155.1981</b>	<b>9,155.1981</b>	<b>0.3538</b>			<b>9,164.0437</b>

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
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>		<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>			<b>2,225.4336</b>

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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	0.0469	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
<b>Total</b>	<b>0.0469</b>	<b>0.0282</b>	<b>0.3349</b>	<b>1.0300e-003</b>	<b>0.1141</b>	<b>9.0000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.3000e-004</b>	<b>0.0311</b>		<b>102.6928</b>	<b>102.6928</b>	<b>2.7000e-003</b>			<b>102.7603</b>

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
<b>Total</b>	<b>1.0327</b>	<b>10.1917</b>	<b>14.5842</b>	<b>0.0228</b>		<b>0.5102</b>	<b>0.5102</b>		<b>0.4694</b>	<b>0.4694</b>	<b>0.0000</b>	<b>2,207.5841</b>	<b>2,207.5841</b>	<b>0.7140</b>			<b>2,225.4336</b>

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

3.6 Paving - 2023

Mitigated Construction Off-Site

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										9-C C9-on: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	0.0469	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
<b>Total</b>	<b>0.0469</b>	<b>0.0282</b>	<b>0.3349</b>	<b>1.0300e-003</b>	<b>0.1141</b>	<b>9.0000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.3000e-004</b>	<b>0.0311</b>		<b>102.6928</b>	<b>102.6928</b>	<b>2.7000e-003</b>		<b>102.7603</b>

3.6 Paving - 2024

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	NBio- CO2	Total CO2	CH4	N2O	CO2e
	lb/day										lb/day					
Off-Road	0.9882	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
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>		<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>		<b>2,225.3963</b>

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Con.



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			99.5563
<b>Total</b>	<b>0.0444</b>	<b>0.0257</b>	<b>0.3114</b>	<b>1.0000e-003</b>	<b>0.1141</b>	<b>8.8000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.1000e-004</b>	<b>0.0311</b>		<b>99.5045</b>	<b>99.5045</b>	<b>2.4700e-003</b>			<b>99.5563</b>

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	0.9882	9.5246	14.6258	0.0228		0.4685	0.4685		0.4310	0.4310	0.0000	2,207.5472	2,207.5472	0.7140			2,225.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000							0.0000
<b>Total</b>	<b>0.9882</b>	<b>9.5246</b>	<b>14.6258</b>	<b>0.0228</b>		<b>0.4685</b>	<b>0.4685</b>		<b>0.4310</b>	<b>0.4310</b>	<b>0.0000</b>	<b>2,207.5472</b>	<b>2,207.5472</b>	<b>0.7140</b>			<b>2,225.3963</b>

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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	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
<b>Total</b>	<b>0.0444</b>	<b>0.0257</b>	<b>0.3114</b>	<b>1.0000e-003</b>	<b>0.1141</b>	<b>8.8000e-004</b>	<b>0.1150</b>	<b>0.0303</b>	<b>8.1000e-004</b>	<b>0.0311</b>		<b>99.5045</b>	<b>99.5045</b>	<b>2.4700e-003</b>		<b>99.5663</b>

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	NBio- 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
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>		<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

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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	0.4734	0.2743	3.3220	0.0107	1.2171	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
<b>Total</b>	<b>0.4734</b>	<b>0.2743</b>	<b>3.3220</b>	<b>0.0107</b>	<b>1.2171</b>	<b>9.4300e-003</b>	<b>1.2266</b>	<b>0.3229</b>	<b>8.6800e-003</b>	<b>0.3315</b>		<b>1,061.3818</b>	<b>1,061.3818</b>	<b>0.0264</b>		<b>1,062.0410</b>

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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					0.0000	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	0.0000	281.4481	281.4481	0.0159		281.8443
<b>Total</b>	<b>236.5923</b>	<b>1.2188</b>	<b>1.8101</b>	<b>2.9700e-003</b>		<b>0.0609</b>	<b>0.0609</b>		<b>0.0609</b>	<b>0.0609</b>	<b>0.0000</b>	<b>281.4481</b>	<b>281.4481</b>	<b>0.0159</b>		<b>281.8443</b>

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	9.4300e-003	1.2266	0.3229	8.6800e-003	0.3315		1,061.3818	1,061.3818	0.0264		1,062.0410
<b>Total</b>	<b>0.4734</b>	<b>0.2743</b>	<b>3.3220</b>	<b>0.0107</b>	<b>1.2171</b>	<b>9.4300e-003</b>	<b>1.2266</b>	<b>0.3229</b>	<b>8.6800e-003</b>	<b>0.3315</b>		<b>1,061.3818</b>	<b>1,061.3818</b>	<b>0.0264</b>		<b>1,062.0410</b>

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4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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

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
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	4,026.75	3,773.25	4,075.50	13,660,065	13,660,065
General Office Building	288.45	62.55	31.05	706,812	706,812
High Turnover (Sit Down Restaurant)	2,368.80	2,873.52	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
<b>Total</b>	<b>8,050.95</b>	<b>8,164.43</b>	<b>8,057.31</b>	<b>20,552,452</b>	<b>20,552,452</b>

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-NW	Primary	Diverted	Pass-by
Apartments Low Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
Apartments Mid Rise	14.70	5.90	8.70	40.20	19.20	40.60	86	11	3
General Office Building	16.60	8.40	6.90	33.00	48.00	19.00	77	19	4
High Turnover (Sit Down)	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	16.30	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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Village South Specific Plan (Proposed) - Los Angeles-South Coast County, Winter

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					
Natural Gas Mitigated	0.7660	6.7462	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
Natural Gas Unmitigated	0.7660	6.7462	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
		lb/day										lb/day					
Apartments Low Rise	1119.16	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	131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486	
Apartments Mid Rise	35784.3	0.3859	3.2978	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	4,234.9339	
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	9.5600e-003	9.5600e-003	150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884	
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460	
Hotel	4769.72	0.0514	0.4676	0.3928	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	5057.75	0.0545	0.4959	0.4165	2.6900e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0296	595.0296	0.0114	0.0109	598.5658	
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	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778	
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>	

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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
		lb/day										lb/day					
Apartments Low Rise	1119.16	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	131.6662	131.6662	2.5200e-003	2.4100e-003	132.4486	
Apartments Mid Rise	35784.3	0.3859	3.2978	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	4,234.9339	
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	9.5600e-003	9.5600e-003	150.9911	150.9911	2.8900e-003	2.7700e-003	151.8884	
High Turnover (Sit Down Restaurant)	22759.9	0.2455	2.2314	1.8743	0.0134	0.1696	0.1696	0.1696	0.1696	0.1696	0.1696	2,677.6342	2,677.6342	0.0513	0.0491	2,693.5460	
Hotel	4769.72	0.0514	0.4676	0.3928	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	5057.75	0.0545	0.4959	0.4165	2.6900e-003	0.0377	0.0377	0.0377	0.0377	0.0377	0.0377	595.0296	595.0296	0.0114	0.0109	598.5658	
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	1.8700e-003	1.8700e-003	29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778	
<b>Total</b>		<b>0.7660</b>	<b>6.7463</b>	<b>4.2573</b>	<b>0.0418</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>0.5292</b>	<b>8,355.9832</b>	<b>8,355.9832</b>	<b>0.1602</b>	<b>0.1532</b>	<b>8,405.6387</b>	

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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
Category	lb/day										lb/day					
Mitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192
Unmitigated	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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	1.6500	14.1000	6.0000	0.0900		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		148.5950	148.5950	0.1424		152.1542
Total	30.5020	15.0496	88.4430	0.0944		1.5974	1.5974		1.5974	1.5974	0.0000	18,148.5950	18,148.5950	0.4874	0.3300	18,259.1192

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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	2.2670					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	1.6500	14.1000	6.0000	0.0900		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		148.5950	148.5950	0.1424		152.1542
<b>Total</b>	<b>30.5020</b>	<b>15.0496</b>	<b>88.4430</b>	<b>0.0944</b>		<b>1.5974</b>	<b>1.5974</b>		<b>1.5974</b>	<b>1.5974</b>	<b>0.0000</b>	<b>18,148.5950</b>	<b>18,148.5950</b>	<b>0.4874</b>	<b>0.3300</b>	<b>18,259.1192</b>

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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**

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Attachment C

<b>Local Hire Provision Net Change</b>	
<b>Without Local Hire Provision</b>	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
<b>With Local Hire Provision</b>	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
<b>% Decrease in Construction-related GHG Emissions</b>	<b>17%</b>

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**EXHIBIT B**



**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](mailto:prosenfeld@swape.com)

***Paul Rosenfeld, Ph.D.***

**Chemical Fate and Transport & Air Dispersion Modeling**

*Principal Environmental Chemist*

**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.

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### **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 H<sub>2</sub>O 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

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**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.

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### **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.

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**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 Tuscon, 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 Tuscon, AZ.

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**Rosenfeld, P. E.** (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23<sup>rd</sup> 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 23<sup>rd</sup> Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

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**Rosenfeld, P. E.** (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23<sup>rd</sup> 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 Floral, 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.

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**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.

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**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

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**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-T addeo-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, 112<sup>th</sup> Judicial District  
Phillip Bales et al., Plaintiff vs. Dow Agrosiences, 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  
Warrn Gilbert and Penny Gilber, Plaintiff vs. BMW of North America LLC  
Case No.: LC102019 (c/w BC582154)  
Rosenfeld Deposition, 8-16-2017, Trail 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-ev-52-DMB-JVM  
Rosenfeld Deposition: July 2017

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- 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 17<sup>th</sup> 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

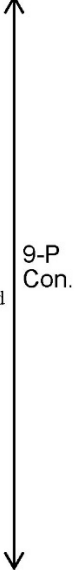
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In the County Court of Dallas County Texas  
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant*.  
Case Number cc-11-01650-E  
Rosenfeld Deposition: March and September 2013  
Rosenfeld Trial: April 2014

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. Cvach, 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**



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 Email: [mhagemann@swape.com](mailto: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);

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- 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.

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- 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.

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- 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:**

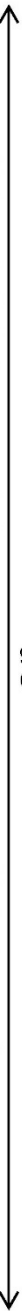
As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, 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.



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- 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.

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**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.

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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.

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**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.

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**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.

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## Response to Comment Letter 9: Western States Regional Council of Carpenters (January 11, 2024)

**9-A:** This is an introductory comment that summarizes the Bullhead Solar Project, provides information about the Western States Regional Council of Carpenters (Western Carpenters or WSRCC), and references three separate court cases regarding process for submitting/receiving comments. This comment does not 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 necessary.

**9-B:** This comment requests the use of the local workforce for the construction of the proposed project, which would result in a reduction of Vehicle Miles Traveled (VMT) and greenhouse gas emissions (GHGs). The commentor states that by hiring a local workforce for the project, the local community will benefit economically and will reduce environmental impacts, specifically regarding GHG emissions. It should be noted that the comment does not define “local workforce”. However, for the purposes of the Bullhead Solar Project, local workforce is defined as including the city of Lancaster and the unincorporated communities of Rosamond and Mojave as seen on page 4.3-35 of the Draft EIR. This is an appropriate definition because the project is located just outside Rosamond. Additionally, on page 4.3-35 of the Draft EIR, it is estimated that, “Approximately 50 percent of construction personnel would be hired from the local area, which includes the cities of Lancaster, Rosamond, and Mojave.” The other remaining half of the potential workforce would come from nonlocal areas such as Bakersfield, Tehachapi, and areas outside the Antelope Valley. As such, analysis in the Draft EIR assumes that the average trip length for employee travel would be approximately 26.5 miles during the construction phase which will consist of most of the employees for the Bullhead Solar Project.

The operational phase of the project will consist of a much smaller workforce. As seen on page 4.13-17 of the Draft EIR, “Approximately up to 15 part-time and/or full-time staff from the adjacent BigBeau Solar O&M building would operate and maintain the facility.” and “These employees would likely come from an existing local and/or regional labor force and would not likely relocate their households as a consequence of working on the proposed project.” The number of employees needed for the operational phase is much smaller and is unlikely to attract potential employees outside of the local area. What is most likely, is that employees for the operational phase would come from the surrounding areas which include Lancaster, Rosamond, and Mojave. As a result, commutes to the project site would be small and would create less GHG emissions. Additionally, the project would most likely employ a local workforce which would benefit the local economy. Therefore, 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 necessary.

**9-C:** This comment is regarding training requirements to prevent the spread of COVID-19 and other infectious diseases at the project site during the construction phase. In this comment, the commentor makes some recommendations to prevent the spread of COVID-19 and other infectious diseases regarding construction site design, testing procedures, and creating a plan preparedness and response plan.

A discussion of COVID-19 can be found in the Draft EIR on page 4.3-21. This synopsis generally describes how a person could contract COVID-19 and what the potential symptoms are. Further analysis on COVID-19 can also be found on page 4.3-65 of the Draft EIR. The analysis done on page 4.3-65 states that, “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 PM2.5 as air pollution and statistically significant increased risk of COVID-19 death in the United States (Harvard, 2020).” Also, “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.”

In addition to the implementation of Mitigation Measure MM 4.3-2, Mitigation Measure MM 4.3-5 would also be implemented. This mitigation measure requires that a COVID-19 Health and Safety Plan be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates and be submitted for review and approval to the Kern County Planning and Natural Resources Department; see page 4.3-67 of the Draft EIR. As such, Mitigation Measures MM 4.3-2 and MM 4.3-5 would be implemented to help prevent the spread of COVID-19 and other infectious diseases. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

- 9-D:** The comment explains the purpose of CEQA and indicates the function of an EIR 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 ensure that the public is given adequate opportunity to comment on the project before the decision moves forward.

The comment letter asserts that the project Draft EIR 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.

The County acknowledges receipt of the comment letter by WSRCC and detailed responses to each substantive comment are provided below. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 9-E:** The comment states that the Draft EIR fails to adequately mitigate the project biological resource impacts. The comment provides definitions from the CEQA Guidelines for significant effects, mitigation measures, mitigation deferrals, and feasible and fully enforceable mitigation measures.

The County acknowledges the CEQA Guidelines and the definitions of these terms provided therein. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 9-F:** The comment states that the Draft EIR fails to implement mitigation measures to decrease the impacts of artificial outdoor lighting on wildlife species. The comment references a CDFW letter about the project and its potential effects of project activities on wildlife behavior and recommends a number of potentially feasible mitigation measures to be considered. 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.

In November 2011, Kern County approved a Dark Skies Ordinance (Chapter 19.81 Dark Skies Ordinance (Outdoor Lighting)). Section 3.7.8 (Lighting) of the *Project Description* describes the level and intensity of project lighting would be the minimum necessary to comply with this

ordinance. The purpose and objectives of the Dark Skies Ordinance was provided in the Draft EIR on pages 4.1-11 and 4.1-12 as well as pages 4.4-82 and 4.4-83. In addition, Kern County Development Standards have specific regulations pertaining to lighting standards.

Mitigation Measure 4.1-4 states: "Prior to commencement of project operations of the solar facility, the project proponent shall demonstrate to Kern County Planning and Natural Resources Staff, through 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 areas. Lenses and bulbs shall not be exposed or extend below the shields."

"Implementation of Mitigation Measure MM 4.1-4 would ensure the proposed project is designed to provide the minimum illumination needed to achieve safety and security objectives while adhering to the County's Dark Skies Ordinance. Implementation of Mitigation Measure MM 4.1-4 and compliance with applicable local development standards and regulations related to lighting would minimize the potential for sky glow, light trespass onto adjacent properties and roads."

As described in Impact 4.4-4, "no known or identified wildlife corridors exist within the proposed project, nor has any part of the project site been identified as a wildlife connectivity area as mapped by the California Essential Habitat Connectivity Project. Lighting from the project site could potentially affect local movement of nocturnal wildlife by deterring them from illuminated areas around the project site. However, all lighting installed as a part of the proposed project would comply with the Kern County Dark Skies Ordinance and would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties as provided in Mitigation Measures MM 4.1-4 through 4.1-6. This would reduce the temporary impacts to wildlife movement through the area."

As stated on page 4.4-91 of the Draft EIR, "direct impacts to special-status species are unlikely to result from project operation and maintenance activities because project construction would remove habitat for special-status species on the project site, although wildlife movement through or around the project site (i.e., wildlife fencing) would still allow limited movement."

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 9-G:** The comment states that Mitigation Measure MM 4.4-10 fails to specify what type of mitigation it entails or what the necessary biological components are and suggested revisions to the Draft EIR to avoid the measure being improperly deferred. Please see response to comment 2-R for revised Mitigation Measure MM 4.4-10.

Project construction and operation will comply with all applicable laws, including CESA. If required Mitigation Measures cannot be implemented effectively to avoid take, the applicant will consult with CDFW and obtain an ITP pursuant to Fish and Game Code section 2081.

As stated in Section 4.4, *Biological Resources*, of the Draft EIR, the project site provides suitable foraging habitat for Swainson's hawk. In accordance with County requirements and revision to Mitigation Measure MM 4.4-10, the project would provide 1:1 replacement for the entirety of foraging habitat permanently impacted by the project. Therefore, impacts to Swainson's hawk

would remain less than significant with the implementation of Mitigation Measures MM 4.4-1, MM 4.4-2, MM 4.4-5, MM 4.4-6, MM 4.4-9, MM 4.4-10, and MM 4.4-11.

- 9-H:** The comment states that the Draft EIR fails to adequately mitigate the project hydrology and water quality resource impacts. The comment provides definitions from the CEQA Guidelines for significant effects, mitigation measures, mitigation deferrals, and feasible and fully enforceable mitigation measures. The comment indicated that Draft EIR Mitigation Measures MM 4.10-11 and MM 4.10-2 discussed in the Draft EIR are improperly deferred.

Cal. Code Regs. tit. 14 Section 15126.5(a)(1)(B) allows mitigation measure details to be developed after project approval, when the Lead Agency commits to the mitigation, performance standards, and actions to achieve the performance standard. Further, Cal. Code Regs. tit. 14 Section 15126.4(a)(1)B allows a menu of mitigation options to achieve performance standards and compliance with regulatory program as acceptable as long as it would result in measures that reduce the impact to the performance standards. Specifically: "Compliance with a regulatory permit or other similar process may be identified as mitigation."

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 9-I:** The comment states that the Stormwater Pollution Prevention Plan (SWPPP) does not provide adequate reasons as to why preparation and submission is not feasible at this time. The comment also states the Draft EIR does not provide necessary specifications about the SWPPP. The comment references two instances where further specificity is necessary.

Section 4.10, *Hydrology and Water Quality*, Regulatory Setting of the Draft EIR, explains the local regulatory programs in place that set water quality performance standards for storm water management applicable to the project, including but not limited to the County NPDES program standards, and menu of mitigation options. Mitigation Measure MM 4.10-1 describes the participation in the regulatory program, via SWPPP preparation and submittal, as well as the menu of mitigation options.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 9-J:** The comment states that Mitigation Measure MM 4.10-2 lacks a reason as to why preparation of a final drainage plan is not feasible at this time, and claims this is deferred mitigation.

Section 4.10, *Hydrology and Water Quality*, Regulatory Setting of the Draft EIR explains the local regulatory programs in place that set water quality performance standards for storm water management applicable to the project, including but not limited to the County Development Standards, Code of Building Regulations, Floodplain Management Ordinance, and County Grading Ordinance program standards, and a menu of mitigation options. Mitigation Measure MM 4.10-2 commits the agency to participation in the regulatory programs related to grading and drainage planning and describes the menu of mitigation options.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**9-K:** The comment requests the Draft EIR be revised to provide requested specifications in order for the measure to not be improperly deferred. See the response to comments A-2 and A-3, above. As stated in response to previous comments provided, the Draft EIR is consistent with Cal. Code Regs. tit. 14 Section 15126.5(a)(1)(B) and applicable local regulations that set water quality performance standards for stormwater management.

As discussed above, Mitigation Measures MM 4.10-1 and 4.10-2 are appropriate and in line with applicable regulations. The Draft EIR does not warrant revision or recirculation. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**9-L:** The comment states that EIR findings must be supported by substantial evidence. The comment indicates that CEQA guidelines require that regulatory compliance may be sufficient to prevent significant adverse impacts and that these findings must be based on a project specific analysis of potential impacts and the effect of regulatory compliance.

**9-M:** The comment states that the Draft EIR fails to analyze impacts of discarding batteries associated with solar facilities. The comment cites text from page 4.9-23 of the Draft EIR and states it does not include substantial evidence to support the conclusion of less than significant hazardous waste impacts. The comment requests the Draft EIR be revised and recirculated to include a discussion of how many batteries the project will require, anticipated hazardous waste impacts, and disposal specifications.

Mitigation Measure MM 4.16-1 requires that an onsite recycling coordinator be designated to facilitate recycling of all feasible waste associated with the project. The aforementioned recycling coordinator would also be responsible for ensuring that waste requiring special disposal are handled according to State and County regulations. This would include batteries that may be considered hazardous waste. With incorporation of Mitigation Measure MM 4.16-1, the County determined that impacts associated with hazards and hazardous materials would be less than significant.

The Draft EIR does not warrant revision or recirculation. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**9-N:** The comment correctly states that general plan consistency is the linchpin of California's land use and development laws. The comment also states that CEQA requires any project EIR to analyze the consistency of such project with the general plan. The commenter then states that the Draft EIR indicates only approval of the proposed project would be consistent with all applicable land use policies and regulations.

The County acknowledges the above listed statements; however, the commenters' overall position is that the Draft EIR did not conduct a consistency analysis of the project's specific entitlement and General Plan deviations; and as such the less than significant finding reported in the Draft EIR is unsupported.

The County respectfully disagrees with this position for the following reasons:

- Table 4.11-3, Consistency Analysis with Kern County General Plan Policies for Land Use, summarizes the consistency of the project with all applicable goals and policies of the Kern County General Plan and relevant planning documents that are applicable to the project site. Table 4.11-4 similarly provides a consistency analysis with Willow Springs Specific Plan Policies for Land Use. These tables provide information about the specific mitigation

measures utilized throughout the various issue sections in the Draft EIR to avoid significant impacts. The tables further describe how the project would either be consistent with each specific policy or describes the steps that would be taken in order to avoid an inconsistency that would lead to an environmental impact.

- The overall land use analysis in the Draft EIR is adequate even if the analysis is not in the specific format preferred by the commenter. Pursuant to state law, any land use inconsistency is not itself an environmental impact; a project may have a significant land use impact only where it will cause a significant environmental impact due to a conflict with a land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental impact. There is no evidence of a project inconsistency with any such applicable land use policy that creates a significant environmental impact.
- Moreover, CEQA does not require a lead agency to follow a particular format when disclosing information about a project's potential impacts, and here the County as the lead agency chose to disclose the project's consistency with the General Plan, Willow Springs Specific Plan, and Zoning Ordinance in tabular format and by describing the project's consistency as a whole, rather than focusing on the impacts resulting from individual amendments and deviations. This does not render the overall land use analysis inadequate.
- In Section 4.11-2, the Draft EIR discloses that the specific amendments to the Land Use and Circulation Elements of the General Plan and Willow Springs Specific Plan.

Given the extensive general plan and zoning consistency disclosures and analysis throughout the Draft EIR chapters and as shown in Tables 4.11-3 and 4.11-4, the County does not agree with the commenter's view that without conducting consistency analysis of the project's specific entitlement and general plan deviations, the Draft EIR's less than significant finding is unsupported. In addition to not acknowledging the extensive discussions of compliance with the County's General Plan and Willow Glen Specific Plan (e.g. throughout Section 4.11 and specifically Tables 4.11-3 and 4.11-4) as described above, the commenter identifies no specific conflicts with a land use plan, policy or regulation that could result in an undisclosed or unmitigated environmental impact and therefore fails to make a fair argument that the project may have a potentially significant environmental impact due to such inconsistency.

The Draft EIR does not warrant revision or recirculation. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 9-O:** This comment summarizes the comment letter. Therefore, no changes to the Draft EIR are required per this comment. The comment has been noted for the record.
- 9-P:** This comment encompasses all the attached exhibits (Exhibits A, B, and C) that the commentor attached to this comment letter. These exhibits are data and other information used by the commentor throughout their comment letter. The comment has been noted for the record and revisions to the Draft EIR are not necessary.



## Comment Letter 10: California Native Plant Society (CNPS) and Defenders of Wildlife (Defenders) (January 12, 2024)



January 12, 2024

Janice Mayes, Planner III  
 Kern County Planning and Natural Resources Department  
 2700 M Street, Suite 100  
 Bakersfield, CA 93301  
 Delivered via email to: [Mayesj@kerncounty.com](mailto:Mayesj@kerncounty.com)

RE: Draft Environmental Impact Report – Bullhead Solar Project  
 (SCH 2022110504)

Dear Ms. Mayes:

Thank you for the opportunity to provide comments in response to the Draft Environmental Impact Report (DEIR) for the proposed Bullhead Solar Project (Project). These comments are submitted on behalf of the California Native Plant Society (CNPS) and Defenders of Wildlife (Defenders).

CNPS is a non-profit environmental organization with more than 12,500 members in 36 Chapters across California and Baja California, Mexico. CNPS’s mission is to protect California’s native plant heritage and to preserve it for future generations through the application of science, research, education, and conservation. We work closely with decision-makers, scientists, and local planners to advocate for well-informed policies, regulations, and land management practices. CNPS supports science-based, rational policies and actions, on the local, state, national, and international levels, that lead to the continued study and enjoyment of the state’s botanical resources.

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.

The proposed 1,343-acre solar facility and associated infrastructure would generate up to 270 MW and include battery storage capable of storing up to 270 MW. The proposed Project is on private land within the Antelope Valley portion of Kern County. It is located 8 miles northwest of the community of Rosamond and 2 miles north of the community of Willow Springs. It would connect to the previously approved Big Beau Solar site via a private road.

**Comments**

We have concerns with the Project as proposed, given the large amount of solar development occurring within the Antelope Valley and the cumulative impact of these projects on special-status species, particularly Swainson’s hawk (SWHA). We urge Kern County to consider and incorporate the following comments to reduce the impact of the Project on special-status species.

10-A

**1. Project Objective**

One of the stated objectives of the proposed Project is to “[s]ite and design the project in an environmentally responsible manner, which includes:

- Locating generation facilities in areas that receive intense solar radiation.
- Using existing electrical transmission facilities, rights-of-way, roads, and other existing infrastructure where practical.
- Minimizing water use; and,
- Reducing greenhouse gas emissions.”

10-B

Typically, siting projects near existing facilities minimizes the amount of development occurring and, therefore, minimizes potential Project impacts on special-status species and their habitat. Utilizing existing electrical facilities is a component of smart-from-the-start energy planning; however, it must be done in a thoughtful manner as it can lead to a significant increase in unavoidable cumulative impacts, as evident in the Antelope Valley. We encourage the continued inclusion of objectives that seek to site and design in an environmentally responsible manner but request it consider biological and cumulative impacts as a component.

**2. Alternative Analysis**

The DEIR states that an alternative location is undetermined at this time, but it would likely be located in the Antelope Valley region of the County. The DEIR continues to state this alternative was eliminated from further consideration since no other suitable sites within control of the proponent would reduce project impacts. It is premature and presumptive to state that an alternative site would have similar impacts when no site has been identified or examined. We recommend an alternative site location on previously disturbed lands be thoroughly analyzed within a revised and recirculated EIR. Additionally, the alternative site location does not need to be limited to the Antelope Valley. We recommend examining alternative locations outside the Antelope Valley that may reduce biological and cumulative impacts.

10-C

**3. Protocol Level Surveys**

**a. Burrowing Owl**

The DEIR states that burrowing owl (BUOW) protocol surveys were performed in areas determined to be potentially suitable habitat and were not conducted across the entirety of the Project site. The areas were deemed suitable or unsuitable during surveys conducted concurrently with the desert tortoise (DT) surveys. The EIR must analyze the impacts of the Project on the entirety of the site and not limit the survey to areas deemed suitable during concurrent surveys. Furthermore, utilizing the concurrent DT and BUOW surveys to determine areas of the site that had protocol-level surveys performed is folly due to the nature of concurrent surveys and the timeline. Species-specific protocol-level surveys should not be conducted concurrently as it increases the likelihood of producing inadequate survey analysis. We request that individual species-specific surveys be conducted and only by qualified biologists with expertise on the specific species. Furthermore, the concurrent DT surveys are outdated, as addressed in our DT recommendation below, and therefore may not accurately reflect the potential for BUOW habitat. We request protocol-level survey for the species across the entirety of the site be performed that conform to the current survey standards established

10-D

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in the *Burrowing Owl Survey Protocol and Mitigation Guidelines*<sup>1</sup> and the *Staff Report on Burrowing Owl Mitigation*.<sup>2</sup>

10-D  
Con.

**b. Desert Tortoise**

According to the Biological Resource Technical Report, DT surveys were conducted from February to April 2021. 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.<sup>3</sup> The DEIR fails to mention any discussions with USFWS to determine if the surveys are valid. Additionally, California Department of Fish and Wildlife (CDFW) recommended DT surveys be conducted within a year of the start of ground-disturbing activities during the appropriate survey period for the adjacent Big Beau Solar Project.<sup>4</sup> We request new DT protocol-level surveys be conducted that adhere to USFWS guidance<sup>5</sup>, within one year prior to ground disturbance to determine presence.

10-E

**4. Deficient Mitigation Measures**

**a. Revise MM 4.4-3**

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 it were listed. The proposed Project site contains moderate potential for the species to occur within the native desert habitats portion of the Project site. MM 4.4-3 requires conducting preconstruction surveys for the species; however, the measure does not explicitly state that surveys should adhere to recent CDFW guidance for CBB-focused surveys.<sup>6</sup> We request the mitigation measure be revised as follows:

“Prior to any ground-disturbing activities in the active season for Crotch’s bumble bee (February 1 through October 31), a qualified biologist (a biologist holding an MOU for Crotch’s bumble bee) should conduct a preconstruction survey within habitats identified as having a moderate potential for Crotch’s bumble bee to occur that is consistent with CDFW’s *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*. The biologist should perform meandering transects on three separate days over a 14-day period prior to construction within the planned activity footprint. To the extent possible, surveys should be conducted between 9am and 1pm, when temperatures are between 65-90F, and when wind speeds are less than 8 miles per hour to encompass the period when bees are most active. The biologist should collect photographic vouchers of bumble bees (i.e., genus *Bombus*) to the extent possible through photographing the bee on floral resources, or by netting and chilling the specimens (conducted by a

10-F

<sup>1</sup> California Burrowing Owl Consortium. 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines*.

<sup>2</sup> California Department of Fish and Game. 2012. *Staff Report on Burrowing Owl Mitigation*.

<sup>3</sup> US Fish and Wildlife Service. 2019. *Preparing for any action that may occur within the range of the Mojave desert tortoise (Gopherus agassizii)*.

<sup>4</sup> California Department of Fish and Wildlife. 2020. *BigBeau Solar Project (Project) Draft Environmental Impact Report (DEIR) SCH No. 2019071059*.

<sup>5</sup> US Fish and Wildlife Service. 2019. *Preparing for any action that may occur within the range of the Mojave desert tortoise (Gopherus agassizii)*.

<sup>6</sup> California Department of Fish and Wildlife. 2023. *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*.

biologist holding an MOU for the Crotch’s bumble bee) and obtaining diagnostic photographs of the captured bees. Survey data should be captured on the California bumble bee atlas (CBBA) data sheet or a project specific data sheet if it encompasses the same CBBA data sheet information (available at:

[https://www.cabumblebeeatlas.org/uploads/1/1/6/9/116937560/cabba\\_data\\_sheet\\_2023.pdf](https://www.cabumblebeeatlas.org/uploads/1/1/6/9/116937560/cabba_data_sheet_2023.pdf)). Survey results should be provided to the California Department of Fish and Wildlife and Kern County **Planning and** Natural Resources Department. If a suspected or confirmed Crotch bumble bee is detected in the Project Area, every effort shall be made to find the nest. If a nest is found in the Project Area, the biologist shall delineate a 50-foot ‘no-activity’ buffer around the nest until the nest senesces (becomes inactive and is no longer in use). If no suspected or confirmed Crotch’s bumble bee is detected in the planned activity footprint, construction could proceed without further measures.”

10-F  
Con.

**b. Revise MM 4.4-7 a**

The measure states that if DT or burrows are identified on the Project site during preconstruction surveys, a DT translocation and monitoring plan shall be developed. Translocation of tortoises is not proven; in fact, a 2023 study found translocation of DT unsuccessful, with only 17.72% of translocated tortoises alive and 65.82% dead at the end of the study.<sup>7,8</sup> Due to the unproven track record of success, any translocation included as a mitigation strategy should include a detailed final plan as a part of the EIR for public analysis and comment. The translocation plan should include methodologies for determining the appropriate conservation area for the translocated DT, impacts on existing populations at the translocation site, when/how the tortoise will be translocated, how tortoise diseases will be addressed, a raven management plan for the translocation site and continued monitoring of host and translocated tortoises. We request the inclusion of the translocation plan to accompany the mitigation measure to provide a needed framework and context. Additionally, we request this plan be available to the interested public for comment prior to the release of the Final EIR.

10-G

**c. Revise MM 4.4-8**

Despite the Project resulting in the permanent conservation of BUOW habitat, only artificial replacement burrows are mitigated at a 1:1 ratio, and compensatory habitat lands (HM) are not provided. Given that BUOW was observed on site, it is evident that occupied habitat will be impacted. We request the inclusion of required HM lands to mitigate the loss of BUOW habitat within the mitigation measure. CDFW must be consulted to establish the appropriate ratio for BUOW HM lands.

10-H

The HM lands must contain suitable habitat for the species and be managed in perpetuity by a qualified conservation organization as defined by CA Civil Code Section 815.3. Alternatively, credits could be purchased in a CDFW approved mitigation bank.

<sup>7</sup> Mack, J. S., and K. H. Berry. 2023. *Drivers of survival of translocated tortoises*. Journal of Wildlife Management 87:e22352. <https://doi.org/10.1002/jwmg.22352>

<sup>8</sup> Of the remaining 16.46% of tortoises, 15.19% were missing at the end of the study and 1.27% were removed from the study.

d. **Revise MM 4.4-10**

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 have been lost due to solar development within the region. Yet, mitigation lands that could be verified only amounted to a negligible 5,432 acres<sup>9</sup>; this can, in part, be attributed to the low mitigation levels required from solar projects that tend to range from 0.5:1 to 1:1 ratio. Ensuring adequate compensatory mitigation is vital within the Antelope Valley, given the region provides important nesting and foraging habitat for the southernmost breeding population remaining in California, and it serves as the core nesting population within the Mojave Desert. The existing 5,432 acres of compensatory mitigation are not enough, considering the large amount of acreage being developed; there is a need to improve SWHA mitigation ratios moving forward.

10-I

Furthermore, the 0.5:1 ratio that is proposed is well below the recommended ratio; the compensatory mitigation must adhere to the latest recommended ratio of, at a minimum, 2:1 for nesting habitat impacted within a five-mile radius of nests active within the last five years.<sup>10</sup> Furthermore, compensatory mitigation for loss of nesting trees, even outside of the nesting season, should be replaced with an appropriate native tree species at a 3:1 ratio.<sup>11</sup>

The HM lands must contain suitable habitat for the species and be managed in perpetuity by a qualified conservation organization as defined by CA Civil Code Section 815.3. Alternatively, credits could be purchased in a CDFW approved mitigation bank.

We request the measure be revised as follows:

“The project proponent shall mitigate for the loss of Swainson’s Hawk ~~nesting and~~ foraging habitat at a ratio of ~~0.5:1~~ **2:1** based on the total approved area of the project. **Nesting trees shall be mitigated at a ratio of 3:1 with an appropriate native tree species.** Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements and as determined by appropriate wildlife agency. **These lands must be managed in perpetuity by a qualified conservation organization as defined by CA Civil Code Section 815.3 or through a mitigation bank credit purchase.**”

10-J

e. **Revise MM 4.4-12**

Preconstruction surveys for species that are only detectable in years with sufficient properly timed precipitation have the potential to not detect a large number of dormant plants. The DEIR should require that preconstruction surveys occur while special-status plant species are identifiable as verified by checking reference populations. The DEIR should also include contingencies to ensure that special-status plants are avoided in the case that construction commences in a year when

10-K

<sup>9</sup> Aardahl, J. and Markowska, S. 2023. (Unpublished data). *Swainson’s Hawk Habitat Loss from Solar Projects in the Antelope Valley, California.*

<sup>10</sup> California Energy Commission and Department of Fish and Game. 2010. *Swainson’s Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Projects in the Antelope Valley for Los Angeles and Kern Counties, California.*

<sup>11</sup> California Department of Fish and Wildlife. 2020. *BigBeau Solar Project (Project) Draft Environmental Impact Report (DEIR) SCH No. 2019071059.*

conditions are not suitable for the detection of these species. Construction could be delayed until a year when individuals could be identified for avoidance, or presence could be assumed and avoided in all suitable habitats.

Measures to ensure the ongoing success of compensatory mitigation and to ensure that mitigation sites are not negatively impacted by restoration activities should be included in this mitigation measure.

We request the measure be revised as follows:

~~“Within 14 days p~~Prior to the commencement of any ground-disturbing activities, the project operator shall conduct preconstruction surveys for special-status and protected plant species within the project area, including but not limited to, alkali mariposa lily and recurved larkspur. **These surveys shall occur when these species are detectable as confirmed by visits to reference populations, as outlined in the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities<sup>12</sup> (protocols).** After the preconstruction survey determines the exact location of these species, if present, on the project site and the number of individuals or populations present, the project proponent/operator shall submit written documentation to the Kern County Planning and Natural Resources Department **and CDFW** confirming implementation of the measures described below. **If reference populations show that these species would not be detectable during preconstruction surveys all known locations of individuals from previous surveys and from CNDDB records, as well as moderate to high quality habitat for the alkali mariposa lily and recurved larkspur shall be avoided by a buffer of 25 feet, including a buffer around any seeps or springs associated with special status populations and suitable habitat, as these mesic species rely on these hydrologic features to persist.**

a. The project proponent/operator shall work with a qualified biologist to determine presence of alkali mariposa lily and recurved larkspur and identify all known locations of alkali mariposa lily **from previous surveys and CNDDB records** to establish “avoidance areas”. All special-status plants found within the project site shall be avoided by a buffer of 25 feet, **including a buffer around any seeps or springs associated with special status populations.** Sturdy, highly visible, orange plastic construction fencing (or equivalent material verified by the authorized biologist) shall be installed around all locations of **previously documented or** detected special-status plants to protect from impacts during the construction phase, until they can be relocated. The fence shall be securely staked and installed in a durable manner that would be reasonably expected to withstand wind and weather events and last at least through the construction period. Fencing shall be removed upon completion of the project construction.

b. All alkali mariposa lilies ~~and recurved larkspur~~ that cannot feasibly be avoided in final project design shall have bulbs collected **while dormant** prior to construction. **All recurved larkspur that cannot be feasibly avoided in the final project shall have their root ball and surrounding soil excavated and immediately transplanted into an approved recipient site at an appropriate**

10-K  
Con.

10-L

<sup>12</sup> California Department of Fish and Wildlife, 2018, *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities*.



**period for the greatest likelihood of successful establishment, while dormant just prior to commencing growth.** Additionally, a transplantation **and restoration** plan for **alkali mariposa lily** **each special status species present** will be submitted and approved by the County **and CDFW** prior to ground disturbance, **and** bulb and root ball collection, **and transplanting**. The plans will include the following:

1. Identify an area of occupied habitat to be preserved and removed;
  2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations; **areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;**
  3. Methods for preservation, restoration, enhancement, and/or translocation;
  4. Indicate a replacement ratio and success standard of 3:1 for impacted ~~to~~ individuals;
  5. Establish a **maintenance and** monitoring program to ensure mitigation success **requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term. Thereafter, yearly monitoring of the site should demonstrate a self-sustaining area of occupation and population numbers with no management actions for years 6-8;**
  - 6. If monitoring shows stable populations after three years with no maintenance the populations should be monitored every two years in perpetuity;**
  - 7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance before returning to a two-year monitoring cycle;**
  - ~~6.8.~~ Create ~~an~~-adaptive management and remedial measures in the event that performance standards are not achieved;
  - ~~7.9.~~ Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.
- c. Temporary ground disturbance associated with the gen-tie lines or collector 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, **locally collected from the same watershed,** prior to or during seasonal rains to promote passive restoration of the area to pre-project conditions. However, if invasive plant species were present, these species would not be restored. An

10-L  
Con.

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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.”

10-L  
Con.

f. **Revise MM 4.4-14**

Mitigation Measure 4.4-14 should be amended to require that the Joshua Tree Preservation Plan for the project should include measures to ensure that any Western Joshua Trees that are transplanted to meet mitigation requirements provided by either CESA or the Western Joshua Tree Conservation Act (WJTCA) are managed and monitored in perpetuity.

10-M

We request the measure be revised as follows:

“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 preapproved by Kern County and shall be approved by the appropriate agencies, including Kern County and CDFW, 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 or Western Joshua Tree Conservation Act (WJTCA) 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. The plan will include the following:

10-N

- 1. Identify an area of occupied habitat to be preserved and removed;
- 2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;
- 3. Methods for preservation, restoration, enhancement, and/or translocation;
- 4. Indicate a replacement ratio and success standard as required by CESA or the WJTCA;
- 5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term. Thereafter, yearly monitoring of the site should demonstrate a self-sustaining area of occupation and population numbers with no management actions for years 6-8;



6. If monitoring shows stable populations after three years with no maintenance the populations should be monitored every two years in perpetuity;

7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance before returning to a two-year monitoring cycle;

8. Create adaptive management and remedial measures in the event that performance standards are not achieved;

9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

10-N  
Con.

g. **Revise MM 4.4-17, 4.4-18 and 4.4-19**

These mitigation measures should include requirements to ensure that any mitigation for impacts to mulefat thicket, snakeweed scrub, and scale broom scrub are managed and monitored in perpetuity.

10-O

We request these three measures be revised as follows:

“...depending on final impacts) through one or more of the following as determined through consultation with the Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment. Mitigation will include the following requirements:

1. Identify an area of occupied habitat to be preserved and removed;

2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;

3. Methods for preservation, restoration, enhancement, and/or translocation;

4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;

5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term. Thereafter, yearly

10-P

monitoring of the site should demonstrate a self-sustaining area of occupation and population numbers with no management actions for years 6-8;

6. If monitoring shows stable populations after three years with no maintenance the populations should be monitored every two years in perpetuity;

7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance before returning to a two-year monitoring cycle;

8. Create adaptive management and remedial measures in the event that performance standards are not achieved;

9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

10-P  
Con.

h. **Revise MM 4.4-20**

Fence openings should encompass the entirety of the fence, and not be limited to specific portals, and shall not be electrified to allow wildlife permeability throughout the entirety of the site. Furthermore, any desert tortoise exclusion fence should be inspected to ensure that DT are not exhibiting fence-pacing behavior.<sup>13</sup>

10-Q

“The project site shall be fenced to keep terrestrial 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] and shall not be electrified 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 in consultation with CDFW and USFWS and shall include 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 following installation to check the fence alignment for desert tortoises that are exhibiting fence-pacing behavior and shall be inspected 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

10-R

<sup>13</sup> Desert Tortoise Council. 2017. *A Compilation of Frequently Implemented Best Management Practices to Protect Mojave Desert Tortoise during Implementation of Federal Actions.*

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.”

10-R  
Con.

5. Cumulative Impacts

The ever-increasing large-scale renewable energy footprint within the Antelope Valley is significantly impacting biological resources in the region. Defenders previously expressed concern over the growing development in the region and our concern with the impact to species, specifically SWHA, within comments submitted on the Notice of Preparation (NOP) of a DEIR for the Project. Despite the previous request, the cumulative impacts analysis is insufficient.

10-S

We are particularly concerned with the cumulative impact on SWHA and BUOW. As we mentioned in the previous comments, the cumulative impact of renewable projects on SWHA within the region is already evident with the loss of foraging and nesting habitat. Cumulative impacts from extensive renewable energy development have profoundly contributed to the decline of the Antelope Valley Swainson’s hawk population. We are already witnessing the impacts of the loss of habitat and the corresponding threat to the survival of the Swainson’s hawk in the region; in 2021, 14 nesting pairs were observed within the Antelope Valley population of the species, and only three successfully fledged young.<sup>14</sup> Most of the existing and proposed renewable energy projects within eastern Kern County are immediately adjacent to, or surround, 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 have been lost due to solar development within the region.<sup>15</sup>

10-T

BUOW was identified as present on the project site with an occupied burrowing observed. Additionally, suitable nesting burrows and suitable foraging habitat are present within the site. BUOW is estimated to have fewer than 10,000 breeding pairs in the state, and the species no longer breeds throughout at least 10.2% of its former habitat range in California.<sup>16</sup> This ongoing threat to the species is partly due to permanent habitat loss caused by development. The BUOW located within the desert region of Kern County is a small and scattered population<sup>17</sup> and, therefore, more susceptible to cumulative impacts.

10-U

Despite the threat to SWHA and BUOW, the cumulative impacts analysis fails to analyze the impact at a resource-based and habitat level in a meaningful way. We reiterate the previous comments and request a more detailed cumulative impacts analysis that closely examines the status and cumulative impact of development on listed species with the potential to occur. Furthermore, we request a detailed map that depicts the remaining nesting and foraging habitat for SWHA with all existing and planned development, not just

10-V

<sup>14</sup> Bloom, Peter H., et al. 2023. *Swainson’s Hawk Nesting Population in the Antelope Valley of the Western Mojave Desert, California*. P. 36.

<sup>15</sup> Aardahl, J. and Markowska, S. 2023. (Unpublished data). *Swainson’s Hawk Habitat Loss from Solar Projects in the Antelope Valley, California*.

<sup>16</sup> California Department of Fish and Wildlife. 2012. *Staff report on burrowing owl mitigation. The 7 March 2012 memo replacing 1995 staff report, State of California Natural resources Agency, Department of Fish and Wildlife. Sacramento, California*.

<sup>17</sup> DeSante, D.F., E. Ruhlén, and D.K. Rosenberg. 1996. *The Distribution and Relative Abundance of Burrowing Owls in California: Evidence for A Declining Population*. Institute for Bird Populations. Point Reyes Station, California.

renewable energy development. Additionally, CDFW, in 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. ↑10-V  
Con.

Thank you once again for the opportunity to provide comments on the DEIR for the proposed Bullhead Solar Project and for considering our comments. We look forward to reviewing the final environmental documentation for the Project and request to be notified when it is available. Please feel free to contact either of us with any questions. ↑10-W

Respectfully submitted,



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## Response to Comment Letter 10: California Native Plant Society (CNPS) and Defenders of Wildlife (Defenders) (January 12, 2024)

**10-A:** The comment indicates that the comment letter is on behalf of the California Native Plant Society and Defenders of Wildlife and provides a brief description of these two organizations. The comment also summarizes the location and provides a high-level description of the proposed Bullhead Solar Project.

The comment states their organization's concerns with the project as proposed, given the large amount of solar development occurring within the Antelope Valley and the cumulative impact of these projects on special-status species, particularly Swainson's hawk, and urge Kern County to consider and incorporate their comments.

The County acknowledges receipt of the comment letter by these organizations and detailed responses to each substantive comment are provided below. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**10-B:** This comment summarizes one of the project objectives related to siting and designing the project in an environmentally responsible manner. The comment notes that siting projects near existing facilities typically minimizes the amount of potential project impact on special-status species and their habitat. However, the comment notes that such placement can lead to an increase of unavoidable cumulative impacts.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**10-C:** This comment states that it is premature and presumptive of the project to indicate that an alternative site would have similar impacts when no site has been identified or examined. The comment requests an alternative site location of previously disturbed lands be thoroughly analyzed within a revised and recirculated EIR. The comment further recommends consideration of alternative locations outside of the Antelope Valley.

CEQA guidelines require that an EIR describe a range of reasonable alternatives to the proposed project or to the location of the project that could feasibly avoid or lessen any significant environmental impacts of the project while attaining most of the project's basic objectives. The range of alternatives required in an EIR is governed by a "rule of reason." Therefore, an EIR must evaluate only those alternatives necessary to permit a reasoned choice. Further, CEQA guidelines state that only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.

Chapter 6, *Alternatives*, of the Draft EIR analyzes and compares the environmental impacts associated with the 1) No Project Alternative, 2) Specific Plan and Zoning Buildout Alternative, 3) Reduced Acreage Alternative, and the 4) No Ground-Mounted Utility-Solar Development Alternative.

In accordance with CEQA guidelines, and stated in Chapter 6 of the Draft EIR, three additional alternatives, including the Alternate Site Alternative, were considered and rejected as they failed to meet most of the project objectives, are infeasible, or do not substantially reduce any significant environmental effects. As stated in Section 6.5.3 of the Draft EIR, the Alternate Site Alternative

was not considered “potentially feasible” because suitable alternative sites in the region are constrained by parcel size, suitable topography, proximity to necessary infrastructure such as interconnection points, and land prices. Moreover, the Applicant does not currently control such sites, and its ability to acquire or control those sites would be contingent on the owner’s willingness to sell. Nevertheless, the Draft EIR reasonably concludes that an alternative site would most likely be located within the Antelope Valley because that area has historically been used for renewable energy development and contains vacant land or land with a history of agricultural uses. Based on that reasonable assumption, the Draft EIR concludes this alternative would likely result in similar project and cumulatively significant impacts after mitigation due to general conditions of the area.

As noted above, CEQA requires that an EIR evaluate a reasonable range of potentially feasible alternatives that will reduce or avoid the significant impacts of the proposed project. As explained in the Draft EIR, there are no suitable sites within the control of the project proponent that would reduce project impacts. Moreover, similar sites availability is further reduced because alternative sites may not be close to existing transmission infrastructure. Accordingly, the Draft EIR properly declined to consider that alternative and the comment does not provide any additional information that would change that analysis.

No further analysis or consideration of alternative site locations is proposed.

- 10-D:** The comment states that burrowing owl protocol surveys were performed in areas determined to be potentially suitable habitat and were not conducted across the entirety of the project site. The comment requests that focused protocol surveys for burrowing owl and desert tortoise be repeated.

Focused burrowing owl surveys were performed according to CDFW 2012 guidelines by qualified biologists in order to inform the analysis in the CEQA document. As burrowing owls are known to occupy a wide variety of habitats, the only areas excluded from the focused burrowing owl surveys were paved and developed areas, which were fairly simple to identify during surveys and reasonable to exclude from impact analysis. In addition, only a portion of the surveys were performed concurrently. For a more detailed description of the survey methods for both burrowing owl and desert tortoise, please see Section 3.3.7 in the BRTR (ICF 2023) included as Appendix E.1 to the Draft EIR. As described in Mitigation Measure MM 4.4-8, pre-construction burrowing owl surveys will be performed according to CDFW (2012) guidelines.

Please see response to comment 3-E for additional information regarding desert tortoise surveys.

- 10-E:** The comment provides a summary of the desert tortoise surveys and USFWS guidance on survey results and length of survey validity. The comment requests new desert tortoise protocol-level surveys be conducted that adhere to USFWS guidance, within one year prior to ground disturbance to determine presence.

The commentor is correct that the USFWS did not provide concurrence that the surveys were valid. The County notes that protocol surveys for desert tortoise were completed for the Bullhead project in April of 2021 and were negative (Draft EIR page 4.4-66). Furthermore, protocol surveys and pre-construction surveys were also completed for the adjacent Big Beau Solar Project and Valentine Solar Project, all of which also had negative results. For a more detailed description of the Bullhead survey methods for desert tortoise, please see Section 3.3.7 in the BRTR (ICF 2023) which was provided as Appendix E.1 to the Draft EIR and the USFWS was included on the distribution. As

described in the Draft EIR Mitigation Measure MM 4.4-7, pre-construction desert tortoise surveys will be performed in compliance with USFWS standards.

In the event any desert tortoise or burrows are identified during such surveys, the Applicant will be required to consult with USFWS and CDFW regarding take coverage, as well as comply with specified minimum conditions. Implementation of Mitigation Measure MM 4.4-7 will therefore ensure no impacts to desert tortoise will occur. Revisions to Mitigation Measure MM 4.4-7 can be found in response to comment 2-V.

The County acknowledges the need for early consultation for take of listed species; however, no USFWS consultation is anticipated as no federally-listed species were present during protocol surveys and no take of listed species is expected prior to, or during, construction. Mitigation Measure 4.4-7 identifies that if federally-listed species are detected during pre-construction surveys, then consultation with USFWS will commence.

**10-F:** This comment provides a summary and requests changes to Mitigation Measure MM 4.4-3 and states that Crotch's bumble bee is a candidate species for listing under the California Endangered Species Act and, as such, must be accorded protection as if it were listed. The proposed project site contains moderate potential for the species to occur within the native desert habitats portion of the project site. Mitigation Measure MM 4.4-3 requires conducting preconstruction surveys for the species; however, the measure does not explicitly state that surveys should adhere to recent CDFW guidance for Crotch's bumble bee-focused surveys. Please see response to comment 2-X for revised Mitigation Measure MM 4.4-3.

**10-G:** The comment provides a summary of Mitigation Measure MM 4.4-7(a) and a background of success rates of translocated desert tortoise. The commenter requests that a final translocation plan be prepared and made available to the interested public prior to the release of the Final EIR.

As noted in response 3-E, protocol surveys for desert tortoise were completed for the Bullhead Project in April of 2021 and were negative (Draft EIR page 4.4-66). Furthermore, protocol surveys and pre-construction surveys were also completed for the adjacent BigBeau Solar Project and Valentine Solar Project, all of which also had negative results. Implementation of Mitigation Measure MM 4.4-7 will ensure that no impacts to desert tortoise will occur. In accordance with Mitigation Measure MM 4.4-7, a desert tortoise translocation and monitoring plan is only required if the species is observed during pre-construction surveys. The preparation of a desert tortoise translocation and monitoring plan would be premature at this stage given the prior survey results. However, such a plan would be prepared if desert tortoises are detected during surveys, and would be developed and approved as part of formal consultation with USFWS and CDFW during the incidental take permit acquisition process. Because of these reasons, a desert tortoise translocation plan will not be prepared at this time.

**10-H:** This comment states that despite the project resulting in the permanent conservation of burrowing owl habitat, only artificial replacement burrows are mitigated at a 1:1 ratio, and compensatory habitat lands (HM) are not provided. The comment states CDFW must be consulted to establish the appropriate ratio for burrowing owl HM lands. The comments further states HM lands must contain suitable habitat for the species and be managed in perpetuity by a qualified conservation organization as defined by CA Civil Code Section 815.3. Alternatively, credits could be purchased in a CDFW approved mitigation bank.

Mitigation Measure MM 4.4-5(1) states that, “To enable kit foxes and **other wildlife** to pass through the project site after construction, the security fence, and any permanent interior fencing shall be a wildlife friendly design that meets the goals of allowing wildlife to move freely through the project site during operation, leaving 4- to 7-inch openings or portals in the fence or the fence shall be raised 7 inches above the ground leaving a gap between the fence mesh and the ground. In the latter case the bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that passes under the fence.” Mandating wildlife friendly fencing for operations allows for the site to be utilized by burrowing owls and other species, thus preserving suitable habitat at the project site.

Furthermore, compensatory mitigation lands for burrowing owl could include those lands being utilized for Swainson’s hawk foraging habitat, as referenced in comment response 3-I. Habitat-based mitigation focused on Swainson’s hawk would preserve in perpetuity potentially suitable habitat for burrowing owl.

In accordance with this request, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measure 4.4-8, Pages 1-52 through 1-54 and Pages 4-99 & 4-100**

**MM 4.4-8:** 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 fewer than 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.

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, 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.

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

American Badger/desert Kit Fox:

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

Burrowing Owl and American Badger

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.

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 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.

The plan shall include, at a minimum:

- Confirm by site surveillance that the burrow(s) is empty of burrowing owls and other species preceding burrow scoping;
- Type of scope to be used and appropriate timing of scoping to avoid impacts;
- 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).
- 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);
- Removal of other potential owl burrow surrogates or refugia onsite;

- Photographing the excavation and closure of the burrow to demonstrate success and sufficiency;

Mitigation for burrowing owl would include those lands being utilized for Swainson's hawk foraging habitat (MM 4.4-10). The mitigation lands will be identified by the Applicant in consultation with The Audubon Society and CDFW. Mitigation for burrowing owl may be nested with other compensatory lands provided they meet the necessary biological requirements described in CDFW 2012. Project mitigation lands will be covered by a conservation easement and managed by a CDFW-approved land management entity. The Swainson's hawk mitigation lands requirement will be satisfied through a combination of Applicant-acquired lands and/or purchase of mitigation bank credits, which is described in response to comment 3-I.

- 10-I:** The comment references upcoming new information on Swainson's hawk habitat and mitigation within Antelope Valley and requests the mitigation ratios be increased from 0.5:1 or 1:1 to 2:1.

As indicated in the comment, the referenced paper has not been made available to the Applicant or the County for consideration. As such, response to comment 2-R shows revised Mitigation Measure MM 4.4-10, which mitigates for the loss of SWHA nesting and foraging habitat, and additional responses regarding SWHA.

- 10-J:** The comment requests revisions to Mitigation Measure MM 4.4-10.

Section 5.6.2.1 of the BRTR, Appendix E.1 of the Draft EIR, and page 4.4-89 of the Draft EIR state that the two nesting territories, consisting of three nests, occur along 95<sup>th</sup> Street West. However, as currently designed, the project would not remove the trees hosting the Swainson's hawk nests.

The Applicant is committed to the preservation of the Swainson's hawk nests, as demonstrated by the portion of Mitigation Measure MM 4.4-9, which states: "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."

Please see response to comment 3-I. No further changes to the Draft EIR are required per this comment.

- 10-K:** This comment states that preconstruction surveys for species that are only detectable in years with sufficient properly timed precipitation have the potential to not detect a large number of dormant plants. The Draft EIR should require that preconstruction surveys occur while special-status plant species are identifiable as verified by checking reference populations. The Draft EIR should also include contingencies to ensure that special-status plants are avoided in the case that construction commences in a year when conditions are not suitable for the detection of these species. Construction could be delayed until a year when individuals could be identified for avoidance, or presence could be assumed and avoided in all suitable habitats. Measures to ensure the ongoing success of compensatory mitigation and to ensure that mitigation sites are not negatively impacted by restoration activities should be included in this mitigation measure. As such, response to

comment 2-LL shows revised Mitigation Measure MM 4.4-12, which requires preconstruction special plant surveys be conducted.

Additionally, after achieving the success criteria defined above, monitoring every two years into perpetuity is unnecessary, as it is not a standard practice for restoration sites achieving success criteria. As described in Mitigation Measure MM 4.4-10 (iv) for habitat lands acquisition, long-term operation, management, protection, and biological monitoring of the approved HM lands, and any other action designed to protect or improve the habitat values of the HM lands would be supported by the endowment funds and designated land manager.

Implementation of Mitigation Measure MM 4.4-12 will ensure that impacts to special-status plants will be less than significant.

- 10-L:** This comment requests revisions to Mitigation Measure MM 4.4-12 to incorporate specific preconstruction survey requirements, protocols to follow, and additional content of transplantation and restoration plan.

In accordance with this request, with few exceptions, please see response to comment 3-K and associated Mitigation Measure MM 4.4-12 augmentation. Kern County Planning and Natural Resources Department is the Lead Agency implementing CEQA and would require analysis of and mitigation for any impacts to species considered special status under CEQA. The special-status plants are not listed by CDFW as threatened or endangered, and therefore CDFW has no nexus for approval authority for any impacts.

Implementation of Mitigation Measure MM 4.4-12 will ensure that impacts to special-status plants will be less than significant.

- 10-M:** This comment requests that Mitigation Measure MM 4.4-14 be amended to require that the Joshua Tree Preservation Plan for the project should include measures to ensure that any Western Joshua Trees that are transplanted to meet mitigation requirements provided by either CESA or the Western Joshua Tree Conservation Act (WJTCA) are managed and monitored in perpetuity.

See response to comment 3-N.

- 10-N:** This comment requests a revision to Mitigation Measure MM 4.4-14. Revisions to Mitigation Measure 4.4-14 can be reviewed in response to comment 2-CC.

After achieving the success criteria defined above, monitoring every two years into perpetuity is unnecessary, as it is not a standard practice for restoration sites achieving success criteria. As described in Mitigation Measure MM 4.4-10 (iv) for habitat lands acquisition, long-term operation, management, protection, and biological monitoring of the approved HM lands, and any other action designed to protect or improve the habitat values of the HM lands would be supported by the endowment funds and designated land manager.

- 10-O:** The comment requests that Mitigation Measures MM 4.4-17, 4.4-18, and 4.4-19 be modified to ensure that any mitigation for impacts to mulefat thicket, snakeweed scrub, and scale broom scrub are managed and monitored in perpetuity.

Please see response to comment 3-P.

**10-P:** This comment requests that the same language be added to the three measures mitigating the loss of special-status plant communities (Mitigation Measures MM 4.4-17, MM 4.4-18, and MM 4.4-19).

In accordance with this request, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measures MM 4.4-17, MM 4.4-18, MM 4.4-19, on Pages 1-59 & 1-60, and Pages 4-106 & 4-107**

**MM 4.4-17:** Prior to the issuance of a grading permit, if avoidance of mulefat thicket is not feasible, direct permanent impacts on up to 1.84 acres of mulefat thicket shall be mitigated at a 2:1 ratio (up to 3.68 acres, depending on final impacts) through one or more of the following as determined through consultation with the Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;

2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;

3. Methods for preservation, restoration, enhancement, and/or translocation;

4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;

5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.

6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.

7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;

8. Create adaptive management and remedial measures in the event that performance standards are not achieved;

9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

**MM 4.4-18:** Within 12 months of building permit issuance, direct permanent impacts on up to 0.55 acre of snakeweed scrub (if Gen-tie Option 2 is implemented) or 3.51 acres of snakeweed scrub (if Gen-tie Option 3 is implemented) shall be mitigated at a 2:1 ratio (up to 1.10 acres or 7.03 acres, respectively, depending on final impacts) through one or more of the following as determined through consultation with Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;
2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;
3. Methods for preservation, restoration, enhancement, and/or translocation;
4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;
5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.
6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.
7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;
8. Create adaptive management and remedial measures in the event that performance standards are not achieved;
9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

**MM 4.4-19:** Within 12 months of building permit issuance, direct permanent impacts on up to 1.26 acres of scale broom scrub shall be mitigated at a 2:1 ratio (up to 2.52 acres, depending on final impacts) through one or more of the following as determined through consultation with Kern County Planning and Natural Resources Department: preservation, restoration, enhancement, or establishment/re-establishment.

1. Identify an area of occupied habitat to be preserved and removed;

2. Identify areas of onsite or offsite preservation, restoration, or enhancement locations, areas identified as potential recipient sites must be surveyed following CDFW protocols to ensure that compensatory mitigation efforts would not cause harmful impacts to existing botanical resources. Low-conflict areas that have been degraded by previous land uses should be prioritized for restoration, leaving intact natural habitat undisturbed by restoration efforts, while on-site mitigation is preferred, if contiguous acreage to achieve mitigation needs is not present on the project site restoration activities may be implemented offsite;

3. Methods for preservation, restoration, enhancement, and/or translocation;

4. Indicate a replacement ratio and success standard of 2:1 for impacted vegetation;

5. Establish a maintenance and monitoring program to ensure mitigation success requiring that maintenance and monitoring of compensatory mitigation sites should occur each year for the first five years of the mitigation term.

6. If monitoring shows stable populations after three years with no maintenance, monitoring may be discontinued.

7. If the populations are not demonstrating stability after the initial five-year maintenance and monitoring period, after three years without maintenance, or if subsequent monitoring shows loss or decline of populations, as determined by the required compensatory mitigation ratio, then yearly maintenance and monitoring shall be resumed for a renewed five year period, again requiring that yearly monitoring show self-sustaining populations for three years post-maintenance;

8. Create adaptive management and remedial measures in the event that performance standards are not achieved;

9. Ensure financial assurances and a mechanism for conservation of any mitigation lands required in perpetuity.

Kern County Planning and Natural Resources Department is the Lead Agency implementing CEQA and would require analysis of and mitigation for any impacts to species/communities considered special status under CEQA. The special-status communities are not listed by CDFW as threatened or endangered, and therefore CDFW has no nexus for approval authority for any impacts.

After achieving the success criteria defined above, monitoring every two years into perpetuity is unnecessary, as it is not a standard practice for restoration sites achieving success criteria. As described in Mitigation Measure MM 4.4-10(iv) for habitat lands acquisition, long-term operation, management, protection, and biological monitoring of the approved HM lands, and any other action designed to protect or improve the habitat values of the HM lands would be supported by the endowment funds and designated land manager.

**10-Q:** This comment requests that Mitigation Measure MM 4.4-20 be revised because fence openings should encompass the entirety of the fence, and not be limited to specific portals, and shall not be electrified to allow wildlife permeability throughout the entirety of the site. Furthermore, any desert

tortoise exclusion fence should be inspected to ensure that desert tortoise are not exhibiting fence-pacing behavior.

The County appreciates and understands the recommendation for a certain fencing style; however, it is necessary to provide flexibility in terms of fencing style to effectively balance wildlife movement and human intrusion and trespass into the project site. The fencing must in all circumstances comply with all agency and regulatory requirements including the NERC Reliability Standard CIP-014-2 Requirements RF.

Please see response to comment 3-R below for revision to Mitigation Measure MM 4.4-20.

**10-R:** This comment provides recommendations for revisions to the perimeter fencing associated with Mitigation Measure MM 4.4-20.

As noted in response to comment 3-Q above, the County appreciates and understands the recommendation for a certain fencing style; however, it is necessary to provide flexibility in order to effectively balance wildlife movement and human intrusion and trespass into the project site. The fencing must in all circumstances comply with all agency and regulatory requirements including the NERC Reliability Standard CIP-014-2 Requirements RF.

In accordance with this request, the Draft EIR has been revised as follows:

**Section 1.10, Summary of Environmental Impacts and Mitigation Measures, Table 1-7, Mitigation Measures MM 4.4-20, on Pages 1-60 & 1-61, and Page 4-108**

**MM 4.4-20:** 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] and shall not be electrified 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 in consultation with CDFW and USFWS and shall include 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 following installation to check the fence alignment for desert tortoises that are exhibiting fence-pacing behavior and shall be inspected 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.

- 10-S:** This comment states that the renewable energy footprint within the Antelope Valley is significantly impacting biological resources in the region. The comment also states that Defenders previously expressed concerns over growing development in the region and asserts the cumulative impact analysis for the project is insufficient.

As set forth in the CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts as well as the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone.

Appendix B-1 and B-2 of the BRTR present the potential for each relevant special-status species to occur within the project site. Project specific impacts to each special-status species is discussed in Section 4.4, *Biological Resources*, of the Draft EIR. The project's cumulative impacts on biological resources are evaluated in Section 4.4, *Biological Resources*, of the Draft EIR. The County determined that despite implementation of Mitigation Measures MM 4.1-4 through MM 4.1-6, MM 4.4-1 through MM 4.4-20, and MM 4.9-2 described in the Draft EIR, cumulative impacts would be significant and unavoidable to transient wildlife species.

The comment states the cumulative impacts analysis is insufficient but does not identify any deficiencies or explain why the current analysis is insufficient. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 10-T:** This comment states that CNPS/Defenders are concerned regarding the cumulative impacts on Swainson's hawk and burrowing owl due to the loss of foraging and nesting habitat associated with renewable projects in the region.

The comment states the cumulative impacts analysis is insufficient but does not identify any such deficiencies or explain why the analysis is insufficient. The County is committed to the reduction of impacts on Swainson's hawk and burrowing owls. As explained in the Draft EIR, potential project-specific impacts on Swainson's hawk would be avoided through implementation of mitigation measures, including focused nesting season surveys for Swainson's hawk per Mitigation Measure MM 4.4-9, and avian nesting surveys that would detect any nesting Swainson's hawk within the project vicinity and mitigate for loss of foraging habitat per Mitigation Measure MM 4.4-10 (see revision to Mitigation Measure MM 4.4-10 in response to comment 3-I). Potential impacts would be further reduced through implementation of Mitigation Measures MM 4.4-1, MM 4.4-2, MM 4.4-5, and MM 4.4-6, which include biological monitoring, worker training, general avoidance and protection measures, and preconstruction surveys prior to initial grading activities.

The project will implement Mitigation Measures MM 4.4-1, MM 4.4-2, MM 4.4-5, MM 4.4-6, MM 4.4-8, MM 4.4-11, and MM 4.9-2 to avoid and minimize project specific impacts to burrowing owls. These measures include monitoring by a qualified biologist, education awareness training, preconstruction clearance survey, general biological resources avoidance measures, preconstruction burrowing owl surveys and nesting bird surveys, and use of non-toxic herbicide.

Although the project will implement avoidance and mitigation measures to reduce impacts, cumulative impacts would be significant and unavoidable to transient wildlife species, including burrowing owls and Swainson's hawk.

- 10-U:** This comment states that burrowing owls were identified as present on the project site and indicates that burrowing owl breeding is declining due to development throughout California. The



commenter expressed that burrowing owls in the region are more susceptible to cumulative impacts.

The comment states the cumulative impacts analysis is insufficient but does not identify any such deficiencies or otherwise explain why the analysis is insufficient. Project specific impacts to burrowing owls are discussed in Section 4.4, *Biological Resources*, of the Draft EIR. The County determined that with implementation of Mitigation Measures MM 4.4-1, MM 4.4-2, MM 4.4-5, MM 4.4-6, MM 4.4-8, MM 4.4-11, and MM 4.9-2 which include monitoring by a qualified biologist, education awareness training, preconstruction clearance survey, general biological resources avoidance measures, preconstruction burrowing owl surveys and nesting bird surveys, and use of non-toxic herbicide, impacts would be less than significant.

Cumulative impacts on biological resources, including burrowing owls, are evaluated in Section 4.4, *Biological Resources*, of the Draft EIR. Six projects within the cumulative study area with similar biological resources were identified and evaluated to determine the extent of cumulative impacts on biological resources. The County determined that despite implementation of Mitigation Measures MM 4.1-4 through MM 4.1-6, MM 4.4-1 through MM 4.4-20, and MM 4.9-2 described in the Draft EIR, cumulative impacts would be significant and unavoidable to transient wildlife species, including burrowing owls.

Although the project will implement avoidance and mitigation measures to reduce impacts to burrowing owls, the project, when considered in combination with other existing and reasonably foreseeable projects, would contribute to cumulative loss of habitat for special-status species.

- 10-V:** This comment states that despite the threat to Swainson's hawk and burrowing owls, the cumulative impacts analysis fails to analyze the impact at a resource-based and habitat level in a meaningful way. The comment requests a more detailed cumulative impacts analysis be conducted and a map depicting remaining nesting and foraging habitat with all existing and planned development be provided. The comment states that consultation with CDFW is recommended. As set forth in the CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts as well as the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone.

As noted above, project specific impacts to each relevant special-status species is discussed in Section 4.4, *Biological Resources*, of the Draft EIR and the project's cumulative impacts on biological resources are evaluated in Section 4.4, *Biological Resources*, of the Draft EIR. The County determined that despite implementation of Mitigation Measures MM 4.1-4 through MM 4.1-6, MM 4.4-1 through MM 4.4-20, and MM 4.9-2 described in the Draft EIR, cumulative impacts would be significant and unavoidable to transient wildlife species, including burrowing owls and Swainson's hawk. The project, when considered in combination with other existing and reasonably foreseeable projects, would contribute to cumulative loss of habitat for special-status species.

The comment asks for a more detailed cumulative impacts analysis but does not explain why the current analysis is insufficient. The comment also asks for a detailed map depicting remaining nesting and foraging habitat for SWHA along with all existing and planned development. However, the comment does not explain what areas the map should cover or why the figures provided in the Draft EIR are insufficient to understand potential cumulative impacts.

The County acknowledges there is a significant and unavoidable cumulative impact on Swainson's hawk and burrowing owl from the project. However, the Draft EIR adequately evaluates such impacts and imposes feasible mitigation measures. No further analysis or consultation is proposed or required.

**10-W:** The comment thanks the County for the opportunity to comment on the Draft EIR and states the commenters look forward to reviewing the Final EIR. The comment further requests notification once the Final EIR is completed and asks the County to contact the commenters with any questions.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

### Comment Letter 11: National Audubon Society (January 15, 2024)



January 15, 2024

Janice Mayes, Planner III Advanced Planning Division  
Kern County Planning and Natural Resources Department  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301

Via email: [majesj@kerncounty.com](mailto:majesj@kerncounty.com)

Dear Ms. Mayes:

On behalf of National Audubon Society (Audubon) and our over 2 million members and supporters in the U.S., over 300,000 of those in California, we thank you for the opportunity to submit comments on the Draft Environmental Impact Report (DEIR) by Kern County (Lead Agency) for the Bullhead Solar Project (Project) in the Antelope Valley of Kern County.

Audubon's 2019 climate science available at <https://climate.audubon.org> reveals that we may lose up to 389 species of N. American birds if warming climbs to 3 degrees Celsius above pre-industrial levels.

Audubon supports rapid deployment of renewable energy that is sited and operated properly to conserve birds and the places birds need in reducing that warming. Working closely with industry, government agencies, partners and our Network, Audubon supports, expedites and expands the development of responsible clean energy policies, planning and projects to achieve 100% clean energy as soon as possible.

PROJECT LOCATION: The project site is located within the unincorporated area of Kern County, along Dawn Road off Sierra Hwy 14 between 105<sup>th</sup> Street West and 75<sup>th</sup> Street West, north of Favorito Avenue and South of Champagne Avenue. The project site is just south of the City of Rosamond and would connect to the BigBeau Solar site via a private road. Other communities in the vicinity of the project site include the Cities of Lancaster, Palmdale, and Neenach in Los Angeles County, which are roughly 17 miles southeast, 24 miles southeast, and 18 miles southwest of the project, respectively. Edwards Air Force Base is 22 miles east of the project's eastern boundary.

The project site is located on a portion of approximately 1,343-acres comprised of 22 privately owned parcels in Section 1 of Township 9 North, Range 14 West; Sections 5 and 6 of Township 9 North, Range 13 West; and Sections 31, 32, and 33 of Township 10 North, Range 13W in the San Bernardino Base and Meridian (SBB&M).

11-A  
11-B

PROJECT DESCRIPTION: 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 the approximately 25 acres of the project site. The project is proposed by EDF Renewable, LLC, and would be developed near the existing BigBeau Solar Project.

11-C

National Audubon Society has recognized Antelope Valley as a Globally Important Bird Area<sup>1</sup>. The Important Bird Areas Program, administered by the National Audubon Society in the United States, is part of an international effort by BirdLife International<sup>2</sup> to designate and support efforts at high conservation value sites that provide significant breeding, wintering, or migratory habitats for specific species or concentrations of birds. Sites are designated based on specific and standardized criteria and supporting data. Antelope Valley was labeled as “globally important” due to three criteria the area meets: 1) the presence of 18 sensitive species of birds; 2) high concentrations of shorebirds in migration (over 10,000 shorebirds possible on a 1 day count at seasonal lakes and water treatment plants); and 3) over 5,000 waterfowl possible on a 1 day count.

11-D

We focus our comments on the analysis of the impacts of the Project on nesting and foraging habitat for Swainson’s hawk by the Lead Agency. Audubon has been engaged in the development of solar energy and the impacts of that development on Swainson’s hawk in the Antelope Valley for over a decade, and we appreciate the ability to work with Lead Agency, Project Developers and California Department of Fish & Wildlife (CDFW) to provide the best scientifically valid measures to avoid, minimize and mitigate for impacts on the hawk and the habitat it needs to survive. We believe and have shown in past projects that conservation and rapid deployment of solar energy can go hand in hand.

11-E

Our comments are:

- We appreciate the effort to document the impacts of the Project on nesting and foraging habitat of Swainson’s hawk using the methodology and protocols of the State of California Energy Commission and Department of Fish and Game June 2, 2010 guidelines available at <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83991&inline>.**

11-F

This data seems complete to understand and calculate the potential impacts to Swainson’s hawk, their significance at both the direct, indirect and cumulative levels and indeed the DEIR does that for foraging habitat.

*The CDFW Swainson’s hawk protocol surveys conducted within 5 miles of the Bullhead Study Area in 2021 documented a total of 12 Swainson’s hawk nests, 11*

<sup>1</sup> <https://www.audubon.org/important-bird-areas>

<sup>2</sup> <http://www.birdlife.org>

*of which have been active within the last 5 years (2017–2021) (CEC and CDFW 2010). Removal of the foraging habitat within the Bullhead Study Area is considered a significant effect on Swainson’s hawks nesting within 5 miles. (Biological Resources Technical Report, Bullhead Solar Project, p. 5-17)*

↑  
11-F  
Con.

However, although the DEIR reports that there are 3 nests that are reported as active over the last five years, the DEIR fails to calculate the distance of the Project Area boundary to those nests and the impact of construction as well as operations in determining whether the impact is significant or not. Nor does the DEIR establish buffer zones or mitigation as recommended by the CDFW/CEC guidance document. If the activities of the project during construction and operation will impact the nesting success of the 3 nests of the Swainson’s hawks within ½ mile, then the DEIR should state clearly whether the Proponent will seek a take permit from CDFW that will mitigate for the potential loss of the nests or provide adequate mitigation to avoid disturbance of the nests at a distance of ½ mile not only in construction but also in operation while the nests continue to be active as defined by CDFW/CEC guidance document. The CDFW/CEC guidance states:

11-G

- a. *During the nesting season, ensure no new disturbances, conversions, or other project-related activities that may cause nest abandonment or forced fledging occur within 1/2 mile of an active nest between March 1 and September 15. Buffer zones may be adjusted in consultation with the Department and the lead agency.*<sup>3</sup>

11-H

If the activities of the project during construction and operation will impact the nesting success of the 3 nests of the Swainson’s hawks within ½ mile, then the DEIR should state clearly whether the Proponent will seek a take permit from CDFW that will mitigate for the potential loss of the nests or provide adequate mitigation to avoid disturbance of the nests at a distance of ½ mile not only in construction but also in operation.

11-I

**2. The mitigation measures including avoidance, minimization and compensatory mitigation for loss of foraging and nesting habitat are improperly deferred in the DEIR.**

The DEIR refers several times to the development of Mitigation and Monitoring and other plans and determination of avoidance, minimization and mitigation measures, including the establishment of performance criteria, until after Project approval. The DEIR also includes mitigation measures that are ambiguous and are therefore not enforceable. Audubon recommends that at the very least the FEIR include these measures and the performance criteria that are essential to support the determinations that biological impacts would be less than significant with mitigation incorporated and no longer defer this mitigation.

11-J

<sup>3</sup> 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 State of California California Energy Commission and Department of Fish and Game June 2, 2010, p. 7. <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83991&inline>

In addition, the DEIR appears to imply that if these plans are developed at a later date and only submitted to Kern County and CDFW rather than approved by Kern County and CDFW, then the impacts are mitigated to less than significant levels. To make an informed decision on whether the impacts would actually be mitigated, one would have to understand how the off-site mitigation lands and the actions required would benefit Swainson’s hawk on the mitigation lands. Additionally, the mitigation measures should be transparent so that the public is able to comment on the adequacy of the avoidance, minimization and compensatory mitigation and whether they reduce the impacts to less than significant. The current process denies participation by the public and stakeholders.

11-K

The success criteria needs to be defined and the actions that make those criteria achievable need to also be described and disclosed, especially since the data on Swainson’s hawk is so well documented and avoidance, minimization and compensatory mitigation standards are fairly well known from all the previous solar projects in the Antelope Valley and their impacts on Swainson’s hawk.

11-L

CEQA Guidelines § 15126.4 (a)(1)(B) states formulation of feasible mitigation measures should not be deferred until some future date. The Court of Appeals in *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal. App.4<sup>th</sup> 645 struck down mitigation measures which required formulating management plans developed in consultation with State and Federal wildlife agencies after project approval.

11-M

At the very least, the FEIR must be specific in the avoidance, minimization and compensatory mitigation that will be enacted to reduce impacts to less than significant, whether a nest take permit has been applied for, how compliance with mitigation measures will be documented and monitored as beneficial for Swainson’s hawk, and whether both Kern County and CDFW have approved the mitigation as adequate. The DEIR at times requires only that Kern County and CDFW receive a plan, not that they have approved a plan. This is ambiguous.

11-N

Thank you, as always, for the opportunity to comment on the Bullhead Solar Project DEIR and the opportunity to work together for renewable energy and conservation of wildlife.

Sincerely,

Garry George  
Senior Director, Climate Strategy  
Director, Clean Energy Initiative  
National Audubon Society  
Los Angeles, CA  
[garry.george@audubon.org](mailto:garry.george@audubon.org)

11-O

cc: Julie Vance, CDFW



**Response to Comment Letter 11: National Audubon Society (January 15, 2024)**

- 11-A:** The comment indicates that the comment letter is on behalf of the National Audubon Society and provides a brief description of the organization.

The County acknowledges receipt of the comment letter by this organization. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-B:** The comment provides a very brief summary of the project location which is described in more detail in the Draft EIR Chapter 3, *Project Description*.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-C:** The comment provides a very brief summary of the project and its location which is described in more detail in the Draft EIR Chapter 3, *Project Description*.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-D:** The comment explains that the Antelope Valley is recognized by the National Audubon Society as a Globally Important Bird Area and provides a description of that program and the rationale for the Antelope Valley's recognition which includes the presence of several sensitive birds, high concentrations of shorebirds in migration, and numerous waterfowl. The comment lists several sensitive species of birds in the area and provides an excerpt from the Important Bird Areas report relevant to the area.

The County acknowledges the National Audubon Society's recognition of the area. No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-E:** The comment states that the National Audubon Society focused their comments on the analysis associated with impacts on Swainson's hawk.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-F:** The comment thanks the County for its data and analysis of Swainson's hawk and provides text from the Draft EIR.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-G:** The comment states that the Draft EIR fails to calculate the distance of the project area boundary to the three identified nests and associated impacts from construction and operations of the project. The comment states that the Draft EIR does not establish buffer zones or mitigation as recommended by the CDFW/CEC guidance document.

Section 5.6.2.1 of the BRTR and page 4.4-89 of the Draft EIR state that the two nesting territories, consisting of three nests, occur along 95th Street West. However, as currently designed, the project would not remove the trees hosting the Swainson's hawk nests. The project description and associated maps show the project boundary as occurring along 95th Street West. Although the

distance is not specifically provided, the locations and proximity of the nests are described and illustrated.

The Applicant is committed to the preservation of the Swainson's hawk nests, as demonstrated by the portion of Mitigation Measure MM 4.4-9, which states: "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." The buffer adjustment sentence will remain to allow for project flexibility. No edits to Mitigation Measure MM 4.4-9 were made as a result of this comment. Additionally, revisions to Mitigation Measure MM 4.4-10 were made and can be seen in response to comments 2-R as well as comments related to Swainson's hawk nests.

**11-H:** This comment provides language from the 2010 CDFW/CEC guidance.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**11-I:** The comment states that the Applicant should seek a take permit from CDFW for project impacts to Swainson's hawk nests within ½ mile or provide adequate mitigation to avoid temporary and permanent disturbance of nests.

Please refer to the response to comment 1-G above. The project intends to avoid take of listed species, including Swainson's hawk, through the implementation of Mitigation Measures MM 4.4-9, MM 4.4-10, and MM 4.4-11 through the construction and operational phases of the project.

**11-J:** This comment states that the Draft EIR defers mitigation until after project approval. The comment also states that the Draft EIR includes mitigation measures that are ambiguous and are therefore not enforceable. Audubon recommends that the Final EIR include these measures and corresponding performance criteria.

Please see response to comment 1-G. The commenter holds that various mitigation measures are ambiguous but does not cite any specific examples of such measures or explain why any measures are ambiguous. The County is committed to complying with CEQA, including by providing a clear Mitigation Measure Monitoring Plan that provides information and direction on the actionable mandates required for resource mitigation, the timeframe for implementation, identification of the responsible monitoring agency(ies), along with steps to compliance.

In addition, the reference to Mitigation and Monitoring plans was not specific to a species or a resource. However, in response to comments in the Draft EIR, several mitigation measures were revised to include more performance criteria essential to support the significance determination, which included Mitigation Measures MM 4.4-10 (Swainson's Hawk Mitigation and Monitoring), MM 4.4-12 (Special-Status plants), MM 4.4-14 (Western Joshua Tree Take Authorization), MM 4.4-17, MM 4.4-18, and MM 4.4-19 (Special-status plant communities) to include steps to achieve mitigation success criteria.

**11-K:** This comment states that the Draft EIR implies that impacts would be less than significant if these plans are developed at a later date and only submitted to Kern County and CDFW rather than approved by Kern County and CDFW. This comment states that further detail regarding the off-site mitigation lands and required actions would benefit Swainson's hawk. Audubon also notes that



mitigation measures should be transparent for members of the public to comment on the adequacy of avoidance, minimization, and compensatory mitigation.

Please refer to response to comments 1-G and 1-J, above. The comment suggests that certain portions of certain mitigation measures may not prove effective, may not be transparent, and may deny participation by the public and stakeholders. The County is committed to complying with CEQA, including by imposing effective mitigation to avoid or reduce the project's significant impacts. However, the comment fails to inform the County with reasonable specificity as to what the commenter believes is inappropriate or insufficient with the proposed mitigation. Accordingly, no further changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-L:** This comment states that mitigation measure success criteria needs to be defined and the actions that make those criteria achievable must be disclosed.

Please see response to comments 1-G and 1-J. The comment suggests that certain mitigation measures do not identify sufficient success criteria or the actions that make those criteria achievable. As set forth in prior responses, the County is committed to complying with CEQA, including by imposing effective mitigation to avoid or reduce the project's significant impacts. The project intends to avoid take of Swainson's hawk during the construction and operational phases through the implementation of Mitigation Measures MM 4.4-9, MM 4.4-10, and MM 4.4-11. Moreover, several mitigation measures have been revised in response to comments, including Mitigation Measures MM 4.4-10 (Swainson's Hawk Mitigation and Monitoring), MM 4.4-12 (Special-Status plants), MM 4.4-14 (Western Joshua Tree Take Authorization), MM 4.4-17, MM 4.4-18, and MM 4.4-19 (Special-status plant communities) to include steps to achieve mitigation success criteria.

The comment fails to explain what the commenter believes is inappropriate or insufficient with the proposed mitigation. Accordingly, no further changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-M:** This comment provides language from the CEQA guidelines.

No changes to the Draft EIR are required per this comment. The comment has been noted for the record.

- 11-N:** This comment notes that the Final EIR must be detailed regarding proposed avoidance, minimization, and compensatory mitigation to reduce impacts to Swainson's hawk nests. The comment also states that the Final EIR should state whether a nest take permit will be pursued.

Please see responses to comments 1-G and 1-J above. As set forth in the Draft EIR, the project intends to avoid take of Swainson's hawk during the construction and operational phases through the implementation of Mitigation Measures MM 4.4-9, MM 4.4-10, and MM 4.4-11. Moreover, several mitigation measures have been revised in response to comments, including Mitigation Measures MM 4.4-10 (Swainson's Hawk Mitigation and Monitoring), MM 4.4-12 (Special-Status plants), MM 4.4-14 (Western Joshua Tree Take Authorization), MM 4.4-17, MM 4.4-18, and MM 4.4-19 (Special-status plant communities).

The comment fails to identify or explain what the commenter believes is inappropriate or insufficient with the proposed mitigation and/or discussion in the Draft EIR. Accordingly, no

further changes to the Draft EIR are required per this comment. The comment has been noted for the record.

**11-O:** The comment notes that the Audubon Society appreciates the opportunity to comment on the project together for renewable energy and conservation of wildlife.

The County thanks the National Audubon Society for their review of the project and their recommendations to the County in assessing environmental impacts.

### 7.3.4 Comments Received After January 17, 2024, Close of Public Comment Period

#### Comment Letter 12: SoCalGas (January 18, 2024)



Transmission Technical  
Services Department  
9400 Oakdale Ave  
Chatsworth, CA 91311  
SC9314

January 18, 2024

Janice Mayes  
Kern County Planning and Natural Resources Department  
mayesj@kerncounty.com

**Subject:** Bullhead Solar Project, By EDF Renewables, LLC; GPA No. 8, Map No. 214; CUP No. 48, Map No. 214; CUP No. 49, Map No. 214; Ag Exclusion Map No. 214; SPA No. 42, Map No. 231; SPA No. 43, Map 231; ZCC No. 158, Map No. 231; CUP No. 121, Map No. 231; CUP No. 1

**DCF:** 0009-24NC

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](mailto:NorthwestDistributionUtilityRequest@semprautilities.com)

12-A

Best Regards,  
Nerses Papazyan  
SoCalGas Transmission Technical Services  
[SoCalGasTransmissionUtilityRequest@semprautilities.com](mailto:SoCalGasTransmissionUtilityRequest@semprautilities.com)

**Response to Comment Letter 12: SoCalGas (January 18, 2024)**

**12-A:** The commenter states that the Transmission Department of SoCalGas does not operate any facilities within the project site area but may maintain and operate facilities within the project's scope. The commenter requests that, to assure no conflict with the Distribution's pipeline system, that the Distribution Department be emailed for coordination. 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 necessary.

# Comment Letter 13: International Brotherhood of Electrical Workers (January 23, 2024)

## Local Union No. 428



## INTERNATIONAL BROTHERHOOD of ELECTRICAL WORKERS

January 23, 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](mailto:loreleio@kerncounty.com)

Janice Mayes, Planner III  
Kern County Planning and Natural Resources  
Department  
2700 "M" Street, Suite 100  
Bakersfield, CA 93301  
[mayesj@kerncounty.com](mailto:mayesj@kerncounty.com)

**Re: Bullhead Solar Project by EDF Renewables, LLC**

Dear Ms. Oviatt and Ms. Mayes:

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.

IBEW Local 428 is pleased to support the Bullhead Solar Project. The Project would involve construction and operation of a photovoltaic solar facility and associated infrastructure necessary to generate 278 MWs of renewable electrical energy with up to 278 MWs of energy storage capacity in Kern County. The Bullhead Solar 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 Bullhead Solar 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.

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 Bullhead Solar Project.

13-A

Sincerely,

Brian Holt  
Business Manager/ Financial Secretary

BRIAN HOLT  
BUSINESS MANAGER/FINANCIAL SEC.

3921 SILLECT AVENUE  
BAKERSFIELD, CALIFORNIA 93308

AFL-CIO



PHONE (661) 323-2979  
FAX (661) 323-1834

## **Response to Comment Letter 13: International Brotherhood of Electrical Workers (January 23, 2024)**

**13-A:** This comment is from the International Brotherhood of Electrical Workers (IBEW). The comment generally describes the IBEW and its local chapter (Local 428), summarizes key elements of the Bullhead Solar Project, and states the IBEW's support for the proposed project. This comment does not 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 necessary.

# Comment Letter 14: Kern County Public Works – Development Review Division; Sewer and Water Division; Floodplain Management Division; and CSA Division (January 24, 2024)



## Office Memorandum

To: Lorelei Oviatt, Director  
 Planning and Natural Resources Department  
 Attn: Janice Mayes, Planner III

January 24, 2024

From: *JFC* Cesar Ayon, Engineering Manager  
 Public Works Department/Development Review Division

Subject: 7-8.5c General Plan Amendment #8, Map #214  
 7-5.3 Conditional Use Permit #48, Map #214  
 7-5.3 Conditional Use Permit #49, Map #214  
 7-5.1 Ag Exclusion, Map #214  
 7-8.5c Specific Plan Amendment #42, Map #231  
 7-8.5c Specific Plan Amendment #43, Map #231  
 7-5.2 Zone Change Case #158, Map #231  
 7-5.3 Conditional Use Permit #121, Map #231  
 7-5.3 Conditional Use Permit #122, Map #231  
 7-8.5c Specific Plan Amendment #35, Map #232  
 7-8.5c Specific Plan Amendment #36, Map #232  
 7-5.2 Zone Change Case #36, Map #232  
 7-5.3 Conditional Use Permit #49, Map #232  
 7-5.3 Conditional Use Permit #50, Map #232  
 (Generally located at 100<sup>th</sup> Street West and Dawn Road, Rosamond)

### Development Review Division

This Department has reviewed the subject project and recommends the following:

1. Support the development variation to the Land Division Ordinance to allow the deletion of dedications along section and mid-section lines, excepting Tehachapi Willow Springs Road.

14-A



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



2. Record, through the Public Works Department, an irrevocable offer of dedication by separate instrument to the County of Kern for the following APNs on Tehachapi Willow Springs Road project frontage, 55 feet in width, per the Kern County Land Division Ordinance and Development Standards:

- a) APN: 346-032-21 – 55 feet dedication – West Side
- b) APN: 346-032-10 – 55 feet dedication – West Side
- c) APN: 346-032-53 – 55 feet Dedication – East Side
- d) APN: 315-011-04 – 55 feet Dedication – West Side
- e) APN: 315-011-05 – 55 feet Dedication – West Side
- f) APN: 315-011-11 – 55 feet Dedication – West Side
- g) APN: 315-011-15 – 55 feet Dedication – West Side

3. Under encroachment permit issued by the Kern County Public Works Department, construct asphalt concrete paved private road approaches along Tehachapi Willow Springs road project frontage at proposed ingress and egress.

4. Provide a Traffic Control Plan that addresses the routes, duration and manner of traffic control that will be implemented to accommodate construction related traffic.

5. Enter into a secured agreement with the Kern County Public Works Department 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.

6. Obtain all necessary Encroachment Permits for any proposed work within the County Road right of way. These permits may be obtained from our Permits Engineer.

7. Obtain all necessary Transportation Permits for any oversized or overweight (heavy) loads that will utilize County maintained roads, which may require California Highway Patrol escort. These permits may be obtained from our Permits Engineer.

8. Contact the California Department of Transportation (Caltrans) regarding this project.

9. All easements shall be kept open, clear, and free from buildings and structures of any kind pursuant to Chapters 18.50 and 18.55 of the Kern County Land Division Ordinance. All obstructions, including utility poles and lines, trees, pole signs, fences, or similar obstructions, shall be removed from the ultimate road rights-of-way. Compliance with this requirement is the responsibility of the applicant and may result in significant financial expenditures.

Thank you for the opportunity to comment on this project. If you have any questions or comments, please contact Rodd Parke of this Department.

Sewer and Water Division

This Division 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 Division at (661) 862-8852.



14-A  
Con.



14-B



Floodplain Management Division

This Division has reviewed the attached subject documents and has the following comments:

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

Therefore, this section recommends the following be included as Conditions of Approval for this project: 14-C

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

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

CSA Division

This Division 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 Miguel Munoz of this Division at (661) 862-8908. 14-D

**Response to Comment Letter 14: Kern County Public Works – Development Review Division; Sewer and Water Division; Floodplain Management Division; and CSA Division (January 24, 2024)**

**14-A:** This comment is from the Kern County Public Works Department/Development Review Division. The commentor states that the project has been reviewed by the Department and is recommending nine conditions of approval.

The Lead Agency is proposing to add Conditions of Approval requiring the project proponent/operator comply with the nine recommendations of the Kern County Public Works Department, Development Review Division. 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 necessary.

**14-B:** This comment states that the Kern County Public Works – Sewer and Water Division reviewed the project and had no comment. The comment has been noted for the record and revisions to the Draft EIR are not necessary.

**14-C:** This comment is from the Kern County Public Works – Floodplain and Management Division. The comment states that the Bullhead Solar Project was reviewed and that runoff of storm water from the site will increase due to the amount of impervious surface being increased on the project site and requests a Condition of Approval:

As stated on pages 4.10-22 through 4.10-24 of the Draft EIR, a Storm Water Pollution Prevention Plan (SWPPP) and a final drainage plan will be developed to mitigate any impacts as a result of an increase of storm water runoff. Additionally, the SWPPP is required under Mitigation Measure MM 4.10-1 and the drainage plan is required under Mitigation Measure MM 4.10-2. Both of these plans would be required to be submitted for review and approval to the Kern County Public Works Department before grading permits are issued. Therefore, the comment has been noted for the record and revisions to the Draft EIR are not necessary.

**14-D:** This comment states that the Kern County Public Works – CSA Division reviewed the project and had no comment. The comment has been noted for the record and revisions to the Draft EIR are not necessary.