Draft
Environmental Impact Report

SCH# 2025071048

Volume 2

Appendix A

Discovery Solar PV and Storage Project

Discovery Solar PV and Storage Project by Discovery Solar Storage, LLC (PP24408); ZCC No. 56, Map 197; ZCC No. 71, Map 198; ZCC No. 29, Map 214; ZCC No. 16, Map 215; CUP No. 22 Map 197; CUP No. 47, Map 198; CUP No. 50, Map 214; CUP No. 51, Map 214; CUP No. 19, Map 215; ZV No. 20, Map 197; ZV No. 36, Map 198; ZV No. 15, Map 214; ZV No. 3, Map 215; GPA No. 18, Map 197 (Circulation); GPA No. 5, Map 198 (Circulation); GPA No. 10, Map 214 (Circulation); GPA No. 7, Map 215 (Circulation); Multiple Vesting Tentative Parcel Maps (VTPM)

Kern County
Planning and Natural Resources Department
Bakersfield, California

January 2026

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Appendices—Volume 2

NOTE TO REVIEWER OF ELECTRONIC FILES:

To assist you in reviewing this electronic document, "bookmarks" and/or "links" have been provided for easier navigation between sections. When available, bookmarks are located in the panel to the left. Links are highlighted in **BLUE** in the Table of Contents. Clicking on either the bookmarks or links will take you to the selected item. This document may consist of multiple linked PDF files. If saving this document to your computer, you must save all corresponding files to a directory on your hard drive to maintain the manner in which these PDF documents are linked.

Appendix A: Notice of Preparation

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Appendix A
Notice of Preparation of a Draft Environmental Impact Report for the Discovery Solar PV and Storage Project

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PLANNING AND NATURAL RESOURCES DEPARTMENT

Planning
Community Development
Administrative Operations

DATE: July 31, 2025

TO: Interested Parties and Surrounding Property Owners

FROM: Kern County Planning and Natural Resources Department
Attn: Mark Tolentino, Planner III
2700 "M" Street, Suite 100
Bakersfield, CA 93301
(661)862-5041; TolentinoM@kerncounty.com

SUBJECT: NOTICE OF PREPARATION (NOP) OF A DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE DISCOVERY SOLAR PV AND STORAGE PROJECT BY DISCOVERY SOLAR PV AND STORAGE, LLC (TERRA-GEN) (PP24408)

The Kern County Planning and Natural Resources Department as Lead Agency (per CEQA Guidelines Section 15062) has determined that preparation of an Environmental Impact Report (per CEQA Guidelines 15161) is necessary for the proposed project identified below. The Planning and Natural Resources Department 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. Your agency may need to use the EIR prepared by our agency when considering your permit or other approval of the project.

You are invited to view the NOP and submit written comments regarding the scope and content of the environmental information in connection with the proposed project should you wish to do so. Due to the limits mandated by State law, your response must be received by **Tuesday, September 2, 2025 at 5:00 p.m**. Comments can be submitted to the Kern County Planning and Natural Resources Department at the address shown above or to TolentinoM@kerncounty.com. A Scoping meeting will be held on **Thursday, August 21, 2025, at 1:30 p.m**. at the address listed above.

PROJECT TITLE: Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC (Terra-Gen) (PP24408); **Case numbers:** ZCC No. 56, Map 197; ZCC No. 71, Map 198; ZCC No. 29, Map 214; ZCC No. 16, Map 215; CUP No. 22 Map 197; CUP No. 47, Map 198; CUP No. 50, Map 214; CUP No. 51, Map 214; CUP No. 19, Map 215; ZV No. 20, Map 197; ZV No. 36, Map 198; ZV No. 15, Map 214; ZV No. 3, Map 215; GPA No. 18, Map 197 (Circulation); GPA No. 5, Map 198 (Circulation); GPA No. 10, Map 214 (Circulation); GPA No. 7, Map 215 (Circulation); Multiple Vesting Tentative Parcel Maps (VTPM)

DOCUMENT AVAILABILITY: The Notice of Preparation for the above referenced project is available for public review at the Planning and Natural Resources Department, which is located at 2700 "M" Street, Suite 100, Bakersfield, CA 93301, or it can be accessed on the Kern County Planning and Natural Resources Department website at: **https://kernplanning.com/planning/notices-of-preparation**

PROJECT LOCATION: The proposed project site is located at the western edge of the Antelope Valley, approximately 6 miles southwest of the community of Mojave, approximately 9 miles southeast of the City of Tehachapi, approximately 8 miles northwest of the unincorporated community of Rosamond, and

approximately 20 miles west of Edwards Air Force Base. Portions of the project are adjacent to and on both sides of the Tehachapi Willow Springs Road, and the LADWP aqueduct. The project is located within the Monolith, Willow Springs, and Soledad Mountain U.S. Geological Survey 7.5-minute quadrangles, and spans multiple Townships, Ranges, and Sections including the following: Township 10 North, Range 13 West, Sections 2-8, 10, and 18; Township 10 North, Range 14 West, Sections 1, 2, 11, 12, 14, 15, 22, and 23; Township 11 North, Range 13 West, Sections 21, 31, 32, and 33; and Township 11 North, Range 14 West Sections 25, 26, 35, 36. The project is within the San Bernardino Base and Meridian (SBB&M).

PROJECT DESCRIPTION: The proposed Discovery Solar PV and Storage Project is a photovoltaic (PV) solar facility with associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours (GWh) of energy storage capacity (approximately 1,000 MW) on an approximate 7,700 acre project site, across 473 privately owned parcels, in an unincorporated area of southeastern Kern County.

A 13.8-acre portion of an additional parcel located adjacent to the southern portion of the project site is proposed for a temporary, off-site construction laydown yard to supplement proposed laydown areas within the Conditional Use Permit (CUP) boundaries of the solar arrays. An additional approximate 411 acres on six (6) parcels are allotted for the proposed medium-voltage (MV) transmission and access easement. PV solar panels, a power collection system, including MV lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers will be installed onsite.

Associated project infrastructure includes an operations and maintenance (O&M) facility, telecommunication facilities, energy storage system(s), two onsite collector substations, and temporary laydown yards. The proposed project also includes a generation-tie (gen-tie) line to connect the project to the existing Windhub Substation.

Implementation of the project as proposed includes the following land use entitlement requests:

Zone Change

(a) Zone Classification Change No. 56, Map 197 from A-1 (Limited Agriculture) to A (Exclusive Agriculture) on approximately 357.88 acres, A-1 FP (Limited Agriculture, Floodplain Combining) to A FP (Exclusive Agriculture, Floodplain Combining) on approximately 10.02 acres, A-1 (Limited Agriculture) and A-1 FP (Limited Agriculture, Floodplain Combining) to A FP (Exclusive Agriculture, Floodplain Combining) on approximately 170.27 acres, A-1 (Limited Agriculture) and A-1 WE (Limited Agriculture, Wind Energy Combining) to A (Exclusive Agriculture) and A WE (Exclusive Agriculture, Wind Energy Combining) on approximately 449.33 acres, for a total of approximately 987.5 acres;

(b) Zone Classification Change No. 71, Map 198 from A-1 (Limited Agriculture) to A (Exclusive Agriculture) on approximately 80.26 acres, E(2.5) RS (Estate 2.5 acres, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 10 acres, E (20) RS (Estate 20 Acres, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 493.64 acres, A WE (Exclusive Agriculture, Wind Energy Combining) and E (20) RS (Estate 20 Acres, Residential Suburban Combining) to A WE (Exclusive Agriculture, Wind Energy Combining) on approximately 40.01 acres, and A (Exclusive Agriculture) on approximately 40 acres, for a total of approximately 623.91 acres;

(c) Zone Classification Change No. 29, Map 214 from E (2.5) RS (Estate 2.5 Acres, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 150.7 acres, PL RS (Platted Lands, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 308.69 acres, PL RS FP (Platted Lands, Residential Suburban Combining, Floodplain Combining) to A FP (Exclusive Agriculture, Floodplain Combining) on approximately 170.39 acres, for a total of approximately 629.78 acres;

(d) Zone Classification Change No. 16, Map 215 from PL RS (Platted Lands, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 111.71 acres.

Conditional Use Permit

(a) Conditional Use Permit No. 22, Map 197, to allow for the construction and operation of a solar facility up to 200 MW and associated infrastructure, including energy storage and a switchyard, and temporary construction staging and equipment storage on approximately 811.23 acres in an A (Exclusive Agriculture) District, pursuant to Chapter 19.12.030.G and 19.12.030.K of the Kern County Zoning Ordinance.

(b) Conditional Use Permit No. 47, Map 198, to allow for the construction and operation of a solar facility up to 150 MW and associated infrastructure, including energy storage and temporary construction staging, on approximately 721.65 acres in an A (Exclusive Agriculture) District, pursuant to Chapter 19.12.030.G and 19.12.030.K of the Kern County Zoning Ordinance.

(c) Conditional Use Permit No. 50, Map 214, to allow for the construction and operation of a solar facility up to 550 MW and associated infrastructure, including energy storage and temporary construction staging and equipment storage, on approximately 3,164.18 acres in an A (Exclusive Agriculture) District, pursuant to Chapter 19.12.030.G and 19.12.030.K of the Kern County Zoning Ordinance.

(d) Conditional Use Permit No. 19, Map 215, to allow for the construction and operation of a solar facility up to 500 MW and associated infrastructure, including energy storage and temporary construction staging and equipment storage, on approximately 2,773.09 acres in an A (Exclusive Agriculture) District, pursuant to Chapter 19.12.030.G and 19.12.030.K of the Kern County Zoning Ordinance.

General Plan Amendment (Circulation)

(a) General Plan Amendment No. 18, Map 197, to remove future road reservations on section and mid-section lines within the project boundary as called for within the Circulation Element of the Kern County General Plan.

(b) General Plan Amendment No. 5, Map 198, to remove future road reservations on section and mid-section lines within the project boundary as called for within the Circulation Element of the Kern County General Plan.

(c) General Plan Amendment No. 10, Map 214, to remove future road reservations on section and mid-section lines within the project boundary as called for within the Circulation Element of the Kern County General Plan

(d) General Plan Amendment No. 7, Map 215, to remove future road reservations on section and mid-section lines within the project boundary as called for within the Circulation Element of the Kern County General Plan.

Zone Variance:

(a) Zone Variance No. 20, Map 197, to authorize multiple parcels of substandard size where a minimum of 20 acres is required for each change in base zoning from the A-1 (Limited Agriculture) District to the A (Exclusive Agriculture) District across approximately 92.21 total acres .

(b) Zone Variance No. 36, Map 198, to authorize multiple parcels of substandard size where a minimum of 20 acres is required for each change in base zoning from the A-1 (Limited Agriculture) District or the E(20) (Estate - 20 acres) District to the A (Exclusive Agriculture) District across approximately 210.38 total acres

(c) Zone Variance No. 15, Map 214, to authorize multiple parcels of substandard size where a minimum of 20 acres is required for each change in base zoning from the PL (Platted Lands) District to the A (Exclusive Agriculture) District across approximately 89.79 total acres.

(d) Zone Variance No. 3, Map 215, to authorize multiple parcels of substandard size where a minimum of 20 acres is required for each change in base zoning from the PL (Platted Lands) District to the A (Exclusive Agriculture) District across approximately 10.12 total acres.

Offsite Features:

(a) Conditional Use Permit No. 51, Map 214, to allow for a temporary, offsite construction laydown area on approximately 13.7 acres of a 30.21 acre parcel in the A (Exclusive Agriculture) District.

Signature: 

Name: Mark Tolentino, Planner III

Agencies, Interested Parties, Surrounding Property Owners

Discovery Solar PV and Storage Project (Terra-Gen) (PP24408)

474 171 29 00 7
ACABADO CARLITO P & ZAIDA C
P O BOX 3163
AGANA GU 96910

474 040 03 00 6
ADESKO JANELLE M
2200 COUNTRY COTTAGE CT
LAS VEGAS NV 89117

346 100 05 00 5
ALLEN PETER B
P O BOX 3095
MCALL ID 83638

474 171 04 00 4
ANTON THOMAS J
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BAKERSFIELD CA 93303

237 192 08 00 0
ARTESIAN COMPANY LTD
901 MONTANA AV # B
SANTA MONICA CA 90403

345 092 31 00 5
BARRERA CARLOS NOE QUINTANILLA
7716 MAC ARTHUR BL APT A
OAKLAND CA 94605

237 042 03 00 1
BONYNGE LENORE A SEPARATE PROP REVOCABLE TR
122 ASPEN LAKES DR
HAILEY ID 83333

346 072 20 00 4
BOYER ROBERT PAUL
PO BOX 911953
ST GEORGE UT 84791

474 072 06 00 8
BREWSTER HERB & DORIS LIV TR
465 NE GREYSTONE LP
MOUNTAIN HOME ID 83647-6030

474 160 19 00 8
ABANES JUANITA & BRILLANTE I A
58-109 KAUNALA
HALIEWA HI 96712

474 160 18 00 5
ACERET REGINO ET AL
P O BOX 302
KAHUKU HI 96731

237 331 17 00 9
ADVM INVESTMENTS LLC
1369 ALLENFORD AV
LOS ANGELES CA 90049

346 071 30 00 6
ALVIDREZ RICHARD E & MARY M DEC TRUST
1840 S ANCHOVY AV
SAN PEDRO CA 90732

345 062 43 00 1
ARCINIEGA HUMBERTO
2979 RANDOLPH ST
HUNTINGTON PARK CA 90255

474 040 02 00 3
ATHERTON LAWRENCE O
1440 WALLACE ST
CLOVIS NM 88101-4770

346 072 19 00 2
BHANOT SANJIV K & PRIYANKA S
22246 ROUNDUP DR
WALNUT CA 91789

346 132 01 00 6
BORAK BARBARA TRUST
2832 E LARKHILL DR
WEST COVINA CA 91791-3426

346 132 13 00 1
BRAGDON SCOTT S
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345 092 24 00 5
BROWN DANIEL A
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CALIF HOT SPG CA 93706

474 171 21 00 3
ABARIENTOS ED & LIZA TRUST
815 VANDERBILT CT
EL DORADO HILLS CA 95762

346 061 22 01 9
ADAMO VOLTURNO M & EBY
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SYRACRUSE NY 13202

346 132 34 00 2
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LA MIRADA CA 90637

346 061 21 01 6
AREFIEG TAGHREED LIVING TRUST
19180 REDFORD LN
HUNTINGTON BCH CA 92648-2148

345 063 18 00 6
BABA GEORGE Y & TOSHI M REVOCABLE TRUST
5898 S MARY AV
HARRISON ID 83833

474 021 13 00 6
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346 072 04 00 8
BOTELLO MARGARITA
9187 BLUE FLAG ST
CORONA CA 92883-8102

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346 132 29 00 8
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474 171 09 00 9
BULBUK JOHN
6538 BARRIE CI
BRIGHTON MI 48114-7435

346 041 26 00 6
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474 160 23 00 9
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237 332 20 00 4
BURNS FAMILY TR
6214 W LUJACK WY
RATHDRUM ID 83858

346 021 01 00 7
BURTON JOHN CLIFFORD
162 PROSPECT
SAUSALITO CA 94965

346 021 02 00 0
BURTON TRUST A
162 PROSPECT
SAUSALITO CA 94965

474 040 14 00 8
BUTALA MICHAEL A 2024 TRUST
7556 CODY DR
STANTON CA 90680

474 021 17 02 6
CADABONA BALDOMERO ET AL
3895 KAIA PL
LIHUE HI 96766-9409

237 342 05 00 4
CALEB PROP LLC
7701 JENICA RD
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237 091 04 00 2
CALIFORNIA PORTLAND CEMENT CO
2025 E FINANCIAL WY
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237 042 01 00 5
CALPORTLAND CO
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346 072 07 00 7
CAPALAD LEONARDO & CECILIA
329 ROXAS BLVD
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237 054 37 00 7
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DEDEDO GU 96912

237 342 03 00 8
CARLSON LIVING TR
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474 171 33 00 8
CARSON HELEN
30352 GULF STREAM DR
CANYON LAKE CA 92587-7472

346 090 32 00 1
CASTRO MALDONADO FAMILY TRUST
845 ARCHWOOD PL
ALTADENA CA 91001

237 053 12 00 7
CHACON LEONARDO & AGRIPINA TR
28832 LEAH CI
RANCHO PLS VERD CA 90275

346 041 03 00 9
CHANDAR ROBERTS LLC
3050 AVENIDA ENCINAS STE 350
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474 021 02 00 4
CHANG JOHN
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474 081 20 00 4
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474 220 13 00 7
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30066 CAMBRIGDE AV
CASTAIC CA 91384

474 082 07 00 4
CHAU FAM TR
8568 HARRISON WY
BUENA PARK CA 90620-3813

474 021 10 00 7
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IRVINE CA 92604

474 171 13 00 0
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345 063 01 00 6
CHUNG DAL & HAE CHUNG TRUST
5329 TOPEKA DR
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345 063 27 00 2
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237 042 21 00 3
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345 061 04 00 1
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ORANGE CA 92869

237 093 50 00 9
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346 100 04 00 2
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CPP IMAGE SYSTEMS LLC
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CUSTER FAMILY TRUST
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346 072 17 00 6
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474 180 14 00 9
DE LEON FAMILY TRUST
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346 081 12 00 7
DEANDA TR
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474 021 11 00 0
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WICHITA FALLS TX 76309-4939

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346 072 28 00 8
DYVAD SUZANNE E LIVING TRUST
4347 N CHAPALA WY
BOISE ID 83713-5002

345 062 44 00 4
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474 071 26 00 9
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346 081 03 00 1
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200 MANOR CT B
WINDSOR CO 80550-5808

346 072 24 00 6
EMAMI DARA
12166 METRIC BL APT 3004
AUSTIN TX 78758

346 071 31 00 9
ENXCO DEV CORP
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SAN DIEGO CA 92128-3432

474 052 14 00 5
ENXCO DEV CORP
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SAND DIEGO CA 92150-4080

474 172 06 00 7
ENXCO DEV CORP
5000 EXECUTIVE PW STE 140
SAN RAMON CA 94583-4342

474 040 12 00 2
ENXCO SERVICES CORP
15445 INNOVATION DR
SAN DIEGO CA 92128-3432

474 160 04 00 4
EQUITY TRUST COMPANY CUST FBO CLARK CAROLYN
8268 S SICILY CT
AURORA CO 80016

345 091 19 00 4
ESCRIN OSMUNDO A & ERLINDA T
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345 062 23 00 3
ESREY DENISE L
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237 331 14 00 0
FAIRGRIEVE WILLIAM T & RHONDA S TR
2552 E ALASKA AV
PORT ORCHARD WA 98366-8213

474 052 12 00 9
FARZAN MAHNAZ KEYVANJAH
161 CHERRY TREE LN
MIDDLETOWN NJ 07748-1813

474 052 28 00 6
FAUSTO BENJAMIN R ET AL
3124 GUILFORD DR
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345 062 16 00 3
FIET JOSEPH & JEAN FAMILY TRUST
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474 220 18 00 2
FISHER MITCH & KRISTY FAMILY TRUST
17445 FLANDERS ST
GRANADA HILLS CA 91344

474 220 20 00 7
FISHER MITCH & KRISTY FAMILY TRUST
17445 FLANDERS ST
GRANDA HILLS CA 91344

474 040 21 00 8
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474 071 14 00 4
FOISY MICHAEL & JANE FAMILY TRUST
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1520 SOUTH CT APT A
GARDNERVILLE NV 89410-4134

345 062 21 00 7
FREEMAN RONAL S & LYNN M
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OXNARD CA 93035-1131

474 083 06 00 8
FRIELING DAVID & DIANA
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TEHACHAPI CA 93584

474 052 10 00 3
FRISCO PAULINE REV TRUST
3140 E HARDING ST
LONG BEACH CA 90805

474 052 05 00 9
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346 072 26 00 2
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SACRAMENTO CA 95831-4312

474 200 05 00 8
GALAPON JAIME & EVANGELINA ET AL
43312 22NDST W
LANCASTER CA 93536

346 090 39 00 2
GALEON ORLANDO ET AL
94-1085 HINA ST
WAIPAHU OAHU HI 96797

237 054 18 00 2
GARCIA LUIS & SILVERIA
P O BOX 149
RUNNING SPRINGS CA 92382

474 082 06 00 1
GARCIA ROSA ELBA
705 E 56TH ST
LOS ANGELES CA 90011

474 171 32 00 5
GARDNER EVAN L
19465 MARQUITA CT
TEHACHAPI CA 93561

346 072 25 00 9
GARIBAY MIGUEL ET AL
10288 CHURCH ST
RNCHO CUCAMONGA CA 91730-3011

237 093 04 00 6
GELASIO ALFRED I & NORA D
309 SYCAMORE ST
PACIFICA CA 94044

345 092 22 00 9
GENDY MEIRI
9796 ALTADENA ST
LAS VEGAS NV 89183

346 132 14 00 4
GILBERT MARILYN J
888 WEST MARSHALL BL
SN BERNARDINO CA 92405

346 120 17 00 6
GILMOUR PIKE ENTERPRISES INC
P O BOX 232
CASTAIC CA 91310

474 160 26 00 8
GM GABRYCH FAMILY LTD PTP
2006 OLD HIGHWAY 395
FALLBROOK CA 92028-8816

474 040 13 00 5
GOMEZ JOSE J DURAN
11008 MYRTLE AV
LAMONT CA 93241

346 072 12 00 1
GONZALEZ LIGIA E
1258 W ROSAMOND BL # 41
ROSAMOND CA 93560

237 341 19 00 8
GREATER PACIFIC HOLDINGS LTD
1849 KINNELOA MESA RD
PASADENA CA 91107

474 190 17 00 1
GREEN ROBERT K & MARIA T
1342 164TH ST # 1
GARDENA CA 90247

474 081 15 00 0
GREENE GORDON G & SHIRLEY J
2706 PALATINE AV
YAKIMA WA 98902-3779

346 011 08 00 5
GUEM CHRISTIAN & PATRICIA A
2737 SE HELMS AV
PT ST LUCIE FL 34952

237 341 27 00 1
GUERRERO LUZVIMINDA S
PO BOX 9363
DEDEDO GU 96912-0363

237 341 18 00 5
GUMBISH ANTHONY M & TRACY R
57560 29 PALMS HW
YUCCA VALLEY CA 92284-2934

346 050 27 00 5
GUTSCHOW FAMILY TRUST
10679 EL ADELANTE
FOUNTAIN VALLEY CA 92708

237 331 11 00 1
HALCROW RONALD B & DEBRA K
24939 HIGHSPRING AV
NEWHALL CA 91321-3461

346 090 06 00 6
HALE MARJORIE
7792 LEDON WY
MIDWAY CITY CA 92655

474 021 03 00 7
HAN SEUNG HOON
1411 E ALTADENA DR
ALTADENA CA 91001-1826

474 072 05 00 5
HATCHER FAMILY TR
3027 EMSGLEN LN
ARNOLD MO 63010

346 131 03 00 5
HAU BETTY
301 RUSSELL AV
MONTEREY PARK CA 91755

474 060 41 00 2
HAWKINS DONALD MARK
109 SMART CT
ENCINITAS CA 92024-2934

345 062 14 00 7
HAYLING LINA BELLA P
11 SUNRISE CI
CLINTON NJ 08809

474 190 36 00 6
HENDERSON FRANK D
3010 CONCORD CT
MARINA CA 93933-4003

237 054 16 00 6
HERNANDEZ DAVID & ENGRACIA
FAM TR
4405 SURITA ST
SACRAMENTO CA 93550

474 160 11 00 4
HERNANDEZ VICENTE L & LO
31441 SANTA MARGARITA PW STE
A313
RANCHO SANTA MA CA 92688-1835

474 010 31 00 8
HERRMANN FAMILY TRUST
PO BOX 2469
DANVILLE CA 94526-7469

474 040 28 00 9
HIGA JULIE D
437 N 16TH ST
MONTEBELLO CA 90640

237 342 14 00 0
HIGUCHI DEAN R
4518 PASEO DE LAS TORTUGA
TORRANCE CA 90505-6332

474 171 12 00 7
HILL GORDON STUART
1530 WINDSHORE WY
OXNARD CA 93035-1401

474 190 19 00 7
HOANG PHAN & NANCY
8315 DUCOR AV
WEST HILLS CA 91304

346 072 16 00 3
HOFFMAN FAMILY REVOCABLE TRUST
20934 DUMETZ RD
WOODLAND HILS CA 91364-4527

345 100 02 00 9
HOLLIDAY ROCK CO INC
1401 N BENSON AV
UPLAND CA 91786

474 010 33 00 4
HONG CHANG-ZERN ET AL
12421 SALMON RIVER RD
SAN DIEGO CA 92129

237 342 12 00 4
HUGGINS TRACY A
675 W CASA MIRAGE DR
CASA GRANDE AZ 85122-6506

474 160 21 00 3
HUGHES REBECCA R 2017 TR
219 S ROSE ST
LODI CA 95240-3435

345 063 24 00 3
HUMPHREY JAMES M & CHRISTINE
1257 W 26TH PL
SAN PEDRO CA 90731-5605

474 083 05 00 5
HUNG TRAN TIEN
1438 E VALENCIA DR
FULLERTON CA 92831-4733

345 091 04 00 0
I R FINANCIAL CORP
29732 VIA LAS CHACRAS
TEMECULA CA 92591

346 132 04 00 5
ICHIROH 2018 TRUST
P O BOX 56867
SHERMAN OAKS CA 91413-6867

237 342 06 00 7
IKEDA FAMILY 1997 TRUST
17816 MANHATTAN ST
TORRANCE CA 90504

474 071 13 00 1
IMGRUND JAHNSON MORRISON
415 E 2ND ST APT 12
TUSTIN OR 92780

474 180 06 00 6
INGERICK EDWARD O
403 BAILEY RD
W HENRIETTA NY 14586

474 180 07 00 9
IPPOLITO GIOVANNI & VLACANCICH TANYA
15430 POWELLS COVE BL
WHITESTONE NY 11357-1330

346 071 28 00 1
ISAAC HANY L
14920 ASTORIA ST APT 311
SYLMAR CA 91342

474 072 08 00 4
ISGRIG SYMANTHA
722 MOUNTAIN RD
MESQUITE NV 89027-3209

474 022 12 00 0
JAMES LISA E REV TR
220 E VALERIO ST APT 2
SANTA BARBARA CA 93101-1936

474 081 24 00 6
JAMES THOMAS D
1610 E WASHINGTON AV
COTTAGE GROVE OR 97424-2265

474 180 11 00 0
JAMESON W DONALD
2294 GRAND AV
CLAREMONT CA 91711

346 072 21 00 7
JARVIS KATHERINE C
33902 DESERT RD
ACTON CA 93510-2819

474 171 16 00 9
JEFFERS SCOTT
4962 LAGO VISTA WY
PARADISE CA 95969

346 072 06 00 4
JIMENEZ ENRIQUE U & VIOLETA R
P O BOX 803
KILAUEA HI 96754

474 081 14 00 7
JOHNSON DANIEL
31830 WINDRUSH RD
AQUA DULCE CA 91390

474 171 18 00 5
KALRA HIRA LAL & NEETA
5936 LEMP AV
NO HOLLYWOOD CA 91601

474 190 13 00 9
KAPLAN FAMILY TR
533 SPOLETO DR
PCFIC PALSADS CA 90272

474 171 17 00 2
KAPLAN LAWRENCE E
P O BOX 6367
ALTADENA CA 91003-6367

346 132 02 00 9
KARCZEWSKI MACIEJ O &
KARCZEWSKA MARZENNA T
PO BOX 56867
SHERMAN OAKS CA 91413-1867

345 092 35 00 7
KARRIS PROPERTIES INC
42263 W 50TH ST # 107
QUARTZ HILL CA 93536

346 072 29 00 1
KEELER MATTHEW & BARKUS SHAREE
4830 STETSON AV
ROSAMOND CA 93560

474 082 05 00 8
KELLEY JACQUELINE M
P O BOX 441164
SOMERVILLE MA 02144

474 052 07 00 5
KEMBLE MARY
P O BOX 2212
ROSAMOND CA 93560

474 171 08 00 6
KERMODE RALPH D
25101 BEAR VALLEY RD PMB 280
TEHACHAPI CA 93561-8311

474 171 25 00 5
KHUMAR DHARMENDRA & KANT GUNJAN
703 WINDSOR RD
COPPELL TX 75019

237 331 22 00 3
KL INVS LLC
200 VALLEY BL
TEHACHAPI CA 93561

474 190 22 00 5
KLEINKRAMER PAUL R & JANE L
129 N GILL RD
EXETER CA 93221

474 180 15 00 2
KOCH ROBERT
40514 W 90TH ST
PALMDALE CA 93551

474 171 07 00 3
KOREAN GOSPEL BROADCASTING CO
2641 W LA PALMA AV
ANAHEIM CA 92801

345 091 14 00 9
KRISTAN RAMEL TRUST
501 GALER PL
GLENDALE CA 91206-3435

474 171 34 00 1
KURTZ JAMES L & DOLLIE D
PO BOX 27911
LAS VEGAS NV 89126-1911

346 011 14 00 2
KWAK FAMILY TRUST
17150 SAN PEDRO CI
FOUNTAIN VALLEY CA 92708

345 062 51 00 4
L A CITY OF
PO BOX 51111 # 1031
LOS ANGELES CA 90051-5700

345 062 54 00 3
L A CITY OF
PO BOX 51111
LOS ANGELES CA 90051-0100

345 063 17 00 3
LAITAN RALPH B & ROSALINA M
4444 BEL AIRE DR
LA CANADA FLINT CA 91011-3317

474 010 29 00 3
LE DUC SONIA S & LARRY V
11741 115TH ST
ROSAMOND CA 93560

474 180 10 00 7
LE HIEN & BRIGITTE & SZTO V
234 CHAHYGA CI
LOUDON TN 37774-2827

346 132 03 00 2
LE TRUC NGUYEN THU LIVING TRUST
PO BOX 56867
SHERMAN OAKS CA 91413-6867

346 072 13 00 4
LEAHY DANA JO
3221 SOLSTICE LN
NEWBERG OR 97132-2867

474 072 10 00 9
LEBOW MARCEL
511 ARENA ST
EL SEGUNDO CA 90245

346 081 06 00 0
LEE FAMILY LIVING TRUST
580 MAIN ST 209
ALHAMBRA CA 91801-3369

346 132 05 00 8
LEE FAMILY LIVING TRUST
1411 W DAHLIA ST
LA HABRA CA 90631-9282

474 072 09 00 7
LIM ANTHONY
1250 WEST KILDARE ST
LANCASTER CA 93534

237 341 24 00 2
LITMER ROBERT & LAURIE TR
19461 N 96TH PL
SCOTTSDALE AZ 85255

346 081 05 00 7
LLENO JOCELYN
481 RIVER VIEW DR
SAN JOSE CA 95111

474 160 16 00 9
LMR PROP L P
1551 15TH ST
SANTA MONICA CA 90404-3304

237 055 14 00 7
LOH INV L P
5625 RUFFIN RD # 210
SAN DIEGO CA 92123-4446

474 190 43 00 6
LOPEZ ARTHUR
1104 CACIQUE ST
SANTA BARBARA CA 93103-3407

346 072 01 00 9
LOST PROP LLC
1704 W SUNSET BL
SAINT GEORGE UT 84770-6504

474 171 27 00 1
M I S REFRIGERATION CORP
894 COTTONWOOD ST
CORONA CA 92879-3062

345 011 33 02 8
MADDEN REVOCABLE TR
3036 VIA BUENA
PALOS VRD EST CA 90274

237 331 18 00 2
MALAKIAN ALBERT
10728 MC VINE AV
SUNLAND CA 91040

474 200 27 00 2
MALIK IDA M
10219 E 219TH AVENUE CT # 26
BONNEY LAKE WA 98391-4033

346 072 03 00 5
MANAOIS ROSITA
2076 PUU KAA ST
KAPAA HI 96746-2338

346 072 18 00 9
MANAOIS ROSITA
PO BOX 80414
SAN DIEGO CA 92138-0414

474 171 20 00 0
MARCOS TEODORO T & NYMPHA L
2420 E 4TH ST APT 14
LONG BEACH CA 90814-3479

345 063 08 00 7
MARKS DEBRA J
4930 SPARKS AV
SAN DIEGO CA 92110

345 011 02 00 0
MARSH N C & SAUNDERS TR
10053 NW 47TH ST
CORAL SPRINGS FL 33076-2495

474 172 11 00 1
MASTAN LEONA D LIV REV TR
6882 S WILD ROSE LN
ATOKA OK 74525

474 172 01 00 2
MASTAN LEONA D TR
6882 S WILD ROSE LN
ATOKA OK 74525

474 171 10 00 1
MATHESON FAM TRUST 2014
7470 ADAMS ST
VENTURA CA 93003

345 063 31 00 3
MATIENZO MARIA L LIVING TRUST
P O BOX 56867
SHERMAN OAKS CA 91413-6867

346 061 13 00 4
MAYFIELD ROSIE M TRUST
2800 PLAZA DEL AMO #443
TORRANCE CA 90503-8907

474 171 19 00 8
MAZZEI IRVIN CHARLES JR
562 E HILLCREST AV
RIDGECREST CA 93555

346 072 27 00 5
MC BROOM MARK N
6911 STOCKTON DR
KNOXVILLE TN 37909-2632

345 061 05 00 4
MC FARLAND WINDMILL PROP LLC
717 VERNON WY
BURLINGAME CA 94010-2819

474 040 18 00 0
MC NEIL DARWIN P & DEBRA L
11715 TEH WILLOW SPGS RD
ROSAMOND CA 93560

474 171 05 00 7
MC NEIL DOUGLAS W
3035 MARY ST
RIVERSIDE CA 92506

474 160 14 00 3
MEDEIROS JULIANNA L
9515 YUCCA HILLS RD
SANTA CLARITA CA 91390-4529

345 011 35 02 4
MILIRAS FAMILY TRUST
155 N HAMILTON DR # 202
BEVERLY HILLS CA 90211-2290

237 055 03 00 5
MOJAVE SECTION 28 LLC
39 SW 106TH PL
PORTLAND OR 97225

474 172 13 00 7
MOKRI TRUST
17088 LON RD
LOS GATOS CA 95033-8510

345 100 03 00 2
MOLANO WILFREDO N & HELEN V
6799 LEWIS CLARK TR
CINCINNATI OH 45241

474 040 25 00 0
MOORE FRANK W & FRANCES ANN
2398 VIENNA PW
DAYTON OH 45459

346 132 32 00 6
MORTENSON ROGER
8941 BACKUS RD
MOJAVE CA 93501

346 132 30 00 0
MORTENSON ROGER LEE
8941 BACKUS RD
MOJAVE CA 93501

346 072 10 00 5
MUNN ROBERT & RENATE REV TR
7321 FALL RIVER CI
LAS VEGAS NV 89129

346 131 07 00 7
MURATA KEN & YASUDA JAMES S
1070 GLENVIEW TL
MONTEREY PARK CA 91754

474 071 19 00 9
MURILLO GLORIA
11893 TRURO AV APT 6
HAWTHORNE CA 90250

474 071 27 00 2
NAVARRO GEORGE D ET AL
2437 CORINTH AV APT 110
LOS ANGELES CA 90064

346 072 11 00 8
NESHEIWAT FAMILY TRUST
3915 INLET ISLE DR
CORONA DEL MAR CA 92625

346 090 04 00 0
NGUYEN ANTHONY
11105 PETAL AV
FOUNTAIN VALLEY CA 92708

346 090 05 00 3
NGUYEN ANTHONY C
11105 PETAL AV
FOUNTAIN VALLEY CA 92708

237 331 21 00 0
NGUYEN FRANK TUAN & HUONG
5749 LOS AMIGOS ST
BUENA PARK CA 90620

345 063 39 00 7
NIEBRES FEDERICO JR & RALINA
21781 TEGLEY
MISSION VIEJO CA 92692-3051

237 410 11 00 7
NISHANIAN 2011 FAMILY TRUST
1919 HARVARD AV
CLOVIS CA 93612

346 061 62 02 4
O CONNELL RAYMOND R JR &
CHERYL A
85438 CAMPANA AV
INDIO CA 92203-2985

474 072 07 00 1
O CONNOR MARILOU P
PO BOX 4484 AAFB
YIGO GU 96929-4484

237 053 04 01 3
OAK CREEK T M CO LLC
11512 EL CAMINO REAL STE 370
SAN DIEGO CA 92130-3025

237 331 19 00 5
OAK INVS LLC
PO BOX 2016
BEVERLY HILLS CA 90213-2016

346 050 25 00 9
OAK INVS LLC
P O BOX 2016
BEVERLY HILLS CA 90213

237 053 14 00 3
OASIS LAND HOLDINGS LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

474 052 21 00 5
ORTEGA ARTURO
11437 OXNARD ST # 1
NORTH HOLLYWOOD CA 91606

346 132 33 00 9
ORTIZ DAVID
P O BOX 2637
RAMONA CA 92065

474 171 24 00 2
OSBORNE FAMILY TRUST
19203 PRICETOWN AV
CARSON CA 90746

474 021 16 02 3
OSEE WILSON YONG
12629 EPPS FIELD RD
DALLAS TX 75234-6205

346 090 38 00 9
PARAOAN BERNARDO &
CONSOLACION
4206 BOUGAINVILLE AV APT C
KAPOLEI HI 96707-3504

474 172 12 00 4
PARAVATO FRANK
P O BOX 2618
ROSAMOND CA 93560

237 332 14 00 7
PARK JAE GYU & BI KYUNG
P O BOX 501568
SAIPAN MP 96950

474 200 13 00 1
PAVER WILLIAM R & JOAN M
130 WINDSOR PARK DR APT C214
CAROL STREAM IL 60188-1998

345 011 32 02 5
PERALTA AGUSTIN JOHN &
LORRAINE
23031 CABRILLO
TORRANCE CA 90501

237 053 08 00 6
PETRO LOCK INC
44604 LOWTREE AV
LANCASTER CA 93534-2922

345 011 38 00 5
PHAM VO BETTYE
3657 LISBON CT
SAN JOSE CA 95132-1315

474 081 23 00 3
PICOU DWIGHT A SR & URSULA
CABRINI
480 TIMBER RIDGE DR
HIGHLAND TWP MI 48357

474 010 09 00 5
POINT WILD LLC
P O BOX 372448
SATELLITE BEACH FL 32937

474 220 05 00 4
POLLOCK MARGARET
PO BOX 2262
MOUNTAIN HOME AR 72654-2264

474 190 33 00 7
PORRAS BETTY
2254 POSADA CT
CORONA CA 92879-8201

474 052 17 00 4
PRELEWICZ DONALD W & RUTH J
4181 N COVE RD
GOLDEN VALLEY AZ 86413

474 082 01 00 6
PROFESSIONAL EQUITIES IN
23201 MILL CREEK DR FLR 3
LAGUNA HILLS CA 92653-1692

474 040 23 00 4
QUANTUM MIRACLES SPENDTHRIFT TRUST
202 VERITAS CT
SAN RAMON CA 94582

346 072 05 00 1
QUIBAN VERONICO B & MARIETTA E
BLOCK 25 LOT 6 DUHAT ST
*

346 072 02 00 2
QUINONEZ CARLOS & ANGELA E
1187 HUCKLEBERRY LN
SAN JACINTO CA 92582

474 190 10 00 0
QUINONEZ JAIME
260 N LYON AV SP 168
HEMET CA 92543-3832

237 341 26 00 8
QUIROZ INEZ
3900 W TULARE AV APT 19
VISALIA CA 93277-1739

474 171 22 00 6
R FAMILY TRUST
21218 HIGHLINE RD
TEHACHAPI CA 93561

474 171 06 00 0
RADER FAMILY TR
2333 WEST AVENUE K
LANCASTER CA 93534

474 071 23 00 0
RARICK TERRY & KAREN TRUST
262 ELM AV
CHULA VISTA CA 91910-2909

474 052 16 00 1
REED SUE ET AL
16256 E AVENUE G
LANCASTER CA 93535-8889

474 052 18 00 7
REED SUE ET AL
3640 MYERS ST
OROVILLE CA 95966-6657

346 061 33 00 2
REICHENTHAL PEGGY LIVING TRUST
20630 ADAM CI
YORBA LINDA CA 92886-4599

474 051 03 00 6
REYNOLDS LIVING TRUST
17290 LAMPLIGHT DR
MONUMENT CO 80132-7405

346 021 03 00 3
RIDGELINE MATERIALS LLC
8941 BACKUS RD
MOJAVE CA 93501

474 021 18 01 0
RITTAMEL FRANCES A 1993 TR
18535 QUAIL RIDGE RD
CALIENTE CA 93518-4408

474 052 25 00 7
RIVERA ELIEZEL
202 E HOUSTON ST APT 802
SAN ANTONIO TX 78205-1846

474 171 02 00 8
RODRIGUEZ STEVEN C
2761 W NEWGROVE ST
LANCASTER CA 93536

237 331 20 00 7
ROGERS GLEN A
5030 LANDIS AV
BALDWIN PARK CA 91706

474 052 04 00 6
ROJAS THERESA M REV TRUST
13686 PHILLIPPI AV
SYLMAR CA 91342

346 071 13 00 7
ROSS ROSALIND R
2010 WESTWIND CT
ROSAMOND CA 93560

474 021 19 00 4
RWM REVOCABLE TRUST
P O BOX 93
SUTTONS BAY MI 49682

474 071 25 00 6
SAENZ LORNA FAMILY TRUST
227 E BURBANK BL U D
BURBANK CA 91502

474 083 07 00 1
SAGEBIEL FAMILY TR
9906 OWENSMOUTH AV # 5
CHATSWORTH CA 91311

345 063 35 00 5
SAKS BARRY E
422 CHESTNUT AV
LONG BEACH CA 90802

474 171 03 00 1
SALAZAR ROMUALDO F & EDYTH
14 NAIC ST CARMEL III SUBD
*

345 091 01 00 1
SANCHEZ ALFONSO
5394 BACKUS RD
MOJAVE CA 93501-7203

346 050 05 00 1
SANCHEZ MICHAEL
2401 FLOWER ST
WASCO CA 93280

474 072 11 00 2
SANDOVAL ERIC
7316 CAMELIA AV
NORTH HOLLYWOOD CA 91605

474 160 03 00 1
SANNEMAN RAYMOND E & DOREEN TR
7201 PILOT CT
SPARKS NV 89436-5425

345 063 25 00 6
SARDEA EDITA LAITAN REVOCABLE LIVING TRUST
PO BOX 6961
*

345 063 26 00 9
SARDEA ROGELIO A & EDITA L
PO BOX 6961
TAMUNING GU 96931-6961

474 083 02 00 6
SCANLAN JAMES J & MARGARET M
44239 165TH STREET EAST
LANCASTER CA 93535

474 180 04 00 0
SCHAPPI ERNEST H & JO ANN M TR
3332 BRITTANY LN
LANCASTER CA 93536-4833

474 200 26 00 9
SCHUMAN BARRY HOWARD REV TRUST
69130 GERALD FORD DR U 32
CATHEDRAL CITY CA 92234

474 081 19 00 2
SCHUNEMAN JOHN D & PYONG SUN
2318 WEST BROADWAY
ANAHEIM CA 92804

474 081 13 00 4
SECONDHAND ANIMALS
PO BOX 1993
ROSAMOND CA 93560-1993

474 190 32 00 4
SEIZED PROP
13312 RANCHERO RD # 430
OAK HILLS CA 92344-4812

346 072 22 00 0
SELIS LAURA
2461 A ST
SAN DIEGO CA 92102

346 072 08 00 0
SESAR REVOCABLE TRUST
15735 ADDISON ST
ENCINO CA 91436

346 081 07 00 3
SHAYNE STEPHANIE LIVING TRUST
249 MARKS ST
HENDERSON NV 89074-8044

237 342 11 00 1
SILVERMAN FAMILY TR
8272 LE CONTE DR
HUNTINGTON BCH CA 92646

474 051 31 00 7
SIMMONS FAMILY TR
4638 BROOKHILL TL
RIVERSIDE CA 92509

237 341 17 00 2
SIMS RONALD E & LINDA L
14027 FAIRWAY WILLOW LN
WINTER GARDEN FL 34787

345 011 01 00 7
SINCLAIR WIND FARMS LLC
76 1000 AEO ST
KAILUA KONA HI 96740-9770

474 190 48 00 1
SLK SEPARATE PROP TRUST OF 1989
4650 N MOORPARK RD
SANTA ROSA VLY CA 93012

346 041 14 00 1
SMITH RORY CLIFFORD
1659 W COLLEGE ST
PULASKI TN 38478-5207

237 055 10 00 5
SOLAR HUB PV LLC
11512 EL CAMINO REAL STE 370
SAN DIEGO CA 92130-3025

474 051 30 00 4
SOU CAL EDISON CO
2244 WALNUT GROVE AV
ROSEMEAD CA 91770

474 071 21 00 4
SOU CAL EDISON CO
2244 WALNUT GROVE
ROSEMEAD CA 91700

474 051 11 00 9
SOUTHERN CALIF EDISON CO
14799 CHESTNUT ST
WESTMINSTER CA 92683

237 331 12 00 4
SPIERER FAMILY TRUST
23432 THORNEWOOD DR
SANTA CLARITA CA 91321

474 190 16 00 8
STAGG JACOB WILLIAM
600 N THE STRAND # 38
OCEANSIDE CA 92054

237 055 13 00 4
STATE OF CALIF
PO BOX 989052
W SACRAMENTO CA 95798

474 010 04 00 0
STERN LEGACY LLC
201 WILSHIRE BL
SANTA MONICA CA 90401

474 021 18 02 9
STRECKER REVOCABLE LIVING TRUST
8845 SW HILLVIEW TR
PORTLAND OR 97225

474 180 03 00 7
STRNAD LIVING TRUST
19509 STAGG ST
RESEDA CA 91335-2353

346 132 16 00 0
TAHMASBI REVOCABLE LIVING TRUST
19313 STARLIGHT DR
TARZANA CA 91356

346 132 11 00 5
TEMPLE FAMILY REVOCABLE TRUST
2430 TRADITIONS LOOP
PASO ROBLES CA 93446-7135

474 040 01 00 0
THIEMAN CONNIE MARIE LILLO
13400 WILLOW OAK CI
GULFPORT MS 39503-5668

474 200 32 00 6
TIVENS DONALD J & M FAMILY TR
PO BOX 36
WOODLAND HILLS CA 91365-0036

237 341 28 00 4
TONG NHIEM & LY HUONG P
PO BOX 2411
LA HABRA CA 90632-2411

474 160 13 00 0
TORQUATO MARCUS G
PO BOX 7019
VAN NUYS CA 91409-7019

474 172 10 00 8
TORRES ALBERTO & LEODOVINA
8306 CORD AV
PICO RIVERA CA 90660-5216

237 093 05 00 9
TURMEZEI DAVID J
PO BOX 191
TEHACHAPI CA 93581

237 093 02 00 0
U S A
1600 PENNSYLVANIA AV NW
WASHINGTON DC 20500

346 081 04 00 4
U S A
*
*

237 331 24 00 9
UNDERWOOD NAOMI N
10078 SYCAMORE CANYON RD
MORENO VALLEY CA 92557-1859

237 054 01 00 2
UNION PACIFIC R/R CO
1400 DOUGLAS ST # 1610
OMAHA NE 68179-1610

346 072 09 00 3
UY ROSS SHELLEY S
1326 PAZ ST
*

237 042 22 00 6
VIOLE FAMILY LLC
241 S WINDSOR BL
LOS ANGELES CA 90004

474 021 20 00 6
WADE BERNARD R TR
1658 SCENIC VIEW DR
SAN LEANDRO CA 94577

474 021 21 00 9
WADE BERNARD R TR
1658 SCENICVIEW DR
SAN LEANDRO CA 94577-5333

346 062 49 00 6
WALDEN WILLIAM RONALD &
MARGARET JUNE TR
11013 OCEAN DR
CULVER CITY CA 90230-4910

345 062 33 00 2
WALTERS BUD
2050 ROAD 150
LAKIN KS 67860-6228

345 011 44 00 2
WAN CHING YI
PO BOX 93
ALVISO CA 95002-0093

346 042 44 00 5
WEBSTER MICHAEL
16525 COTUIT CI
HUNTINGTON BCH CA 92649

237 342 10 00 8
WELCH ILEANA A LIVING TR
6100 N RAINBOW BL
LAS VEGAS NV 89130-1408

474 172 09 00 6
WESTER NATURAL RESOURCES LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

474 190 11 00 3
WESTERN AMERICA SERVICE CORP
TRUST 80445
13743 VENTURA BL STE 290
SHERMAN OAKS CA 91423-3091

346 061 55 00 6
WESTERN NATIONAL RESOURCES
LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

237 370 03 00 3
WESTERN NATRUAL RESOURCES
LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

346 132 24 00 3
WESTERN NATURAL RESOURCE LLC
11455 EL CAMINO RD STE 160
SAN DIEGO CA 92130

346 062 50 00 8
WESTERN NATURAL RESOURCES
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

237 053 09 00 9
WESTERN NATURAL RESOURCES
LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

237 054 39 00 3
WESTERN NATURAL RESOURCES
LLC
11455 EL CAMINO REAL # 160
SAN DIEGO CA 92130

237 054 44 00 7
WESTERN NATURAL RESOURCES
LLC
11455 EI CAMINO REAL STE 160
SAN DIEGO CA 92130

345 062 02 00 2
WESTERN NATURAL RESOURCES
LLC
11455 EL CAMINO REAL 160
SAN DIEGO CA 92130

345 062 39 00 0
WESTERN NATURAL RESOURCES
LLC
11455 EL CAMIO REAL STE 160
SAN DIEGO CA 92130

346 041 16 00 7
WESTERN NATURAL RESOURCES
LLC
11455 EL CAMINO REAL STE 16
SAN DIEGO CA 92130

346 050 36 00 1
WESTERN NATURAL RESOURCES
LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 90034

474 051 25 00 0
WESTERN NATURAL RESOURCES
LLC
11455 EL CAMINO REAL LLC
SAN DIEGO CA 92130

474 071 03 00 2
WESTERN NATURAL RESOURCES LLC
1455 EL CAMINO REL STE 160
SAN DIEGO CA 92130

474 180 08 00 2
WESTERN NATURAL RESOURCES LLC
7339 COLLEGE AV
WHITTIER CA 90602

346 071 22 00 3
WESTERNNATURAL RESOURCE LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

346 012 12 00 3
WESTN NATL RESOURCES LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

346 041 32 00 3
WESTN NATURAL RESOUCES LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

346 050 17 00 6
WESTN NATURAL RESOURCES
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

237 053 02 00 8
WESTN NATURAL RESOURCES LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

237 093 48 00 4
WESTN NATURAL RESOURCES LLC
114550 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

237 093 49 00 7
WESTN NATURAL RESOURCES LLC
11455 EL CMAINO REAL STE 160
SAN DIEGO CA 92130

345 011 31 00 4
WESTN NATURAL RESOURCES LLC
11455 EL CAMINO REAL
SAN DIEGO CA 92130

346 061 47 00 3
WESTN NATURAL RESOURECES LLC
11455 EL CAMINO REAL STE 160
SAN DIEGO CA 92130

474 171 35 00 4
WIDMER HOLDINGS LTD
62 MCKENZIE LAKE PLACE SE
*

346 100 02 00 6
WIGGINS ADRIENNE K
PO BOX 50322
AUSTIN TX 78763-0322

474 052 06 00 2
WIGGINS BRENT D & MARIA I
13686 PHILLIPPI AV
SYLMAR CA 91342

474 052 20 00 2
WILLIAMS COMMUNICATIONS INC
P O BOX 22067
TULSA OK 74121-2067

474 171 30 00 9
WILLIAMS ROBERT M & JENNIFER LYN
627 REBEL RD
OLD HICKORY TN 37138

237 053 18 00 5
WINDSTAR ENERGY LLC
399 BIG BAY RD
QUEENSBURY NY 12804-7854

237 331 10 00 8
WOODCLIFF INVS INC
19313 STARLIGHT DR
TARZANA CA 91356

346 132 19 00 9
YANG MICHAEL CHAO PING
3839 MICHILLINDA DR
WALNUT CA 91107-5714

346 131 06 00 4
YASUDA JAMES S & MARGARET M LIVING TRUST
1070 GLENVIEW TERRACE
MONTEREY PARK CA 91754

474 180 05 00 3
YAVARI ASADOLLAH
11716 W PICO BL STE 201
LOS ANGELES CA 90064

474 200 35 00 5
YOUNG ANDREW PETER & CICELY TR
8819 NE 12TH AV
SEATTLE WA 98115

345 063 33 00 9
ZUBER REBECCA L
71004 NEERCITY RD
RAINER OR 97048

237 093 10 00 3
110 ACRES MOJAVE TRUST
1134 HYATT AV
WILMINGTON CA 90744

City of Arvin
P.O. Box 548
Arvin, CA 93203

Bakersfield City Planning Dept
1715 Chester Avenue
Bakersfield, CA 93301

California City Planning Dept
21000 Hacienda Blvd.
California City, CA 93515

Delano City Planning Dept
P.O. Box 3010
Delano, CA 93216

City of Maricopa
P.O. Box 548
Maricopa, CA 93252

City of McFarland
401 West Kern Avenue
McFarland, CA 93250

City of Ridgecrest
100 West California Avenue
Ridgecrest, CA 93555

City of Shafter
336 Pacific Avenue
Shafter, CA 93263

City of Taft
Planning & Building
209 East Kern Street
Taft, CA 93268

City of Tehachapi
Attn: John Schlosser
115 South Robinson Street
Tehachapi, CA 93561-1722

City of Wasco
764 E Street
Wasco, CA 93280

Inyo County Planning Dept
P.O. Drawer "L"
Independence, CA 93526

Kings County Planning Agency
1400 West Lacey Blvd, Bldg 6
Hanford, CA 93230

Los Angeles Co Reg Planning Dept
320 West Temple Street
Los Angeles, CA 90012

San Bernardino Co Planning Dept
385 North Arrowhead Avenue, 1st Floor
San Bernardino, CA 92415-0182

San Luis Obispo Co Planning Dept
Planning and Building
976 Osos Street
San Luis Obispo, CA 93408

Santa Barbara Co Resource Mgt Dept
123 East Anapamu Street
Santa Barbara, CA 93101

Tulare County Planning & Dev Dept
5961 South Mooney Boulevard
Visalia, CA 93291

Ventura County RMA Planning Div
800 South Victoria Avenue, L1740
Ventura, CA 93009-1740

U.S. Bureau of Land Management
Ridgecrest Field Office
300 South Richmond Road
Ridgecrest, CA 93555

China Lake Naval Weapons Center
Tim Fox, RLA - Comm Plans & Liaison
429 E Bowen, Building 981
Mail Stop 4001
China Lake, CA 93555

Edwards AFB, Mission Sustainability Liaison
412 TW, Bldg 2750, Ste 117-14
195 East Popson Avenue
Edwards AFB, CA 93524

Eastern Kern Resource Cons Dist
300 South Richmond Road
Ridgecrest, CA 93555-4436

Environmental Protection Agency
Region IX Office
75 Hawthorn Street
San Francisco, CA 94105

U.S. Dept of Agriculture/NRCS
5080 California Avenue, Ste 150
Bakersfield, CA 93309-0711

U.S. Army Corps of Engineers
P.O. Box 997
Lake Isabella, CA 93240

U.S. Postal Service
Address Management Systems
28201 Franklin Parkway
Santa Clarita, CA 91383-9321

State Air Resources Board
Stationary Resource Division
P.O. Box 2815
Sacramento, CA 95812

So. San Joaquin Valley Arch Info Ctr
California State University of Bkfd
9001 Stockdale Highway
Bakersfield, CA 93311

Caltrans/Dist 6
Planning/Land Bank Bldg.
P.O. Box 12616
Fresno, CA 93778

Caltrans/Dist 9
Planning Department
500 South Main Street
Bishop, CA 93514

State Clearinghouse
Office of Planning and Research
1400 - 10th Street, Room 222
Sacramento, CA 95814

State Dept of Conservation
Director's Office
715 "P" Street, MS 1900
Sacramento, CA 95814

State Dept of Conservation
Geologic Energy Management Division
11000 River Run Boulevard
Bakersfield, CA 93311

State Mining and Geology Board
715 “P” Street, MS 1909
Sacramento, CA 95814

California State University
Bakersfield - Library
9001 Stockdale Highway
Bakersfield, CA 93309

California Energy Commission
James W. Reed, Jr.
1516 Ninth Street
Mail Stop 17
Sacramento, CA 95814

California Fish & Wildlife
1234 East Shaw Avenue
Fresno, CA 93710

State Dept of Food & Agriculture
1220 "N" Street
Sacramento, CA 95814

California Highway Patrol
Planning & Analysis Division
P.O. Box 942898
Sacramento, CA 94298-0001

State Office of Historical Pres
Attention Susan Stratton
P.O. Box 942896
Sacramento, CA 95296-0001

Integrated Waste Management
P.O. Box 4025, MS #15
Sacramento, CA 95812-4025

State Water Resources Control Board
Division of Drinking Water
Attn: Jesse Dhaliwal, Sr. Sanitary Eng
4925 Commerce Drive, Suite 120
Bakersfield, CA 93309

Public Utilities Comm Energy Div
505 Van Ness Avenue
San Francisco, CA 94102

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

State Lands Commission
100 Howe Avenue, Ste 100-South
Sacramento, CA 95825-8202

State Dept of Toxic Substance Control
Environmental Protection Agency
1515 Tollhouse Road
Clovis, CA 93612

Cal Environmental Protection Agency/
Dept of Toxic Substances Control, Reg 1
Attn: Dave Kereazis, Permit Div - CEQA
8800 Cal Center Drive, 2nd Floor
Sacramento, CA 95826

State Dept of Water Resources
San Joaquin Dist.
4201 S Sabodan St
Bakersfield, CA 93313

State Dept of Water Resources
Div. Land & Right-of-Way
P.O. Box 942836
Sacramento, CA 94236

Kern County
Agriculture Department

Kern County Airports Department

County Clerk

Kern County Administrative Officer

Kern County Public Works Department/
Building & Development/Floodplain

Kern County Public Works Department/
Building & Development/Survey

Kern County
Env Health Services Department

Kern County Fire Dept
Aaron Duncan

Kern County Library/Beale
Local History Room

Kern County Library/Beale
Andie Sullivan

Kern County Museum
3801 Chester Avenue
Bakersfield, CA 93301

Kern County Parks & Recreation

Kern County Sheriff's Dept
Administration

Kern County Public Works Department/
Building & Development/Development
Review

Kern County Public Works Department/Operations &
Maintenance/Regulatory Monitoring &
Reporting

Kern County Public Works Department/
Building & Development/Code
Compliance

Kern County Superintendent of Schools
Attention School District Facility Services
1300 - 17th Street
Bakersfield, CA 93301

Local Agency Formation Comm/LAFCO
5300 Lennox Avenue, Suite 303
Bakersfield, CA 93309

Kern County Water Agency
3200 Rio Mirada Drive
Bakersfield, CA 93308

East Kern Air Pollution
Control District

U.S. Army
Attn: Daniel J. Saelens
G3 Force Integration
P.O. Box 105100
Fort Irwin, CA 92310

U.S. Marine Corps
Command Gen MCIWEST-MCB CamPen
Attn: A/CS, G7
Box 555010, Bldg 1160, Rm 280
Camp Pendleton, CA 92055-5246

Los Angeles Audubon
926 Citrus Avenue
Los Angeles, CA 90036-4929

Defenders of Wildlife
P.O. Box 401
Folsom, CA 95763

Native American Heritage Council
of Kern County
Attn: Gene Albitre
18169 Highway 155
Woody, CA 93287

Mojave Town Council
Bill Deaver, President
P.O. Box 1113
Mojave, CA 93502-1113

Tehachapi Unified School Dist
300 S Robinson Street
Tehachapi, CA 93561

Golden Hills Community Serv Dist
P.O. Box 637
Tehachapi, CA 93581

Tehachapi Parks & Recreation Dist
P.O. Box 373
Tehachapi, CA 93561

Adams, Broadwell, Joseph & Cardozo
Attention: Janet M. Laurain
601 Gateway Boulevard, Suite 1000
South San Francisco, CA 94080

U.S. Army
Attn: Tim Kilgannon, Reg 9 Coord
Office of Strategic Integration
721 - 19th Street, Room 427
Denver, CO 80202

AT&T California
OSP Engineering/Right-of-Way
4901 Ashe Road
Bakersfield, CA 93313

Center on Race, Poverty
& the Environnent
5901 Christie Avenue, Suit 208
Emeryville, CA 94608

California Farm Bureau
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Sacramento, CA 95833

Beth Boyst
Pacific Crest Trail Program Manager
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Mojave, CA 93501

KernCOG
1401 19th Street - Suite 300
Bakersfield, CA 93301

Antelope Valley-East Kern
Water Agency
6500 West Avenue N
Palmdale, CA 93551

Tehachapi-Cummings Co Water Dist
P.O. Box 326
Tehachapi, CA 93561

U.S. Air Force
Attn: David Bell/AFCEC CZPW
Western Regional/Leg Branch
510 Hickam Avenue, Bld 250-A
Travis AFD, CA 94535-2729

U.S. Navy
Attn: Steve Chung, Plans & Liaison Officer
1220 Pacific Highway
San Diego, CA 92132-5190

Kern Audubon Society
Attn: Frank Bedard, Chairman
P.O. Box 3581
Bakersfield, CA 93385

Center on Race, Poverty
& the Environmental/
CA Rural Legal Assistance Foundation
1012 Jefferson Street
Delano, CA 93215

Mojave Chamber of Commerce
P.O. Box 935
Mojave, CA 93502

Anitra Kass
Pacific Crest Trail Association
41860 Saint Annes Bay Drive
Bermuda Dunes, CA 92203

Sierra Club/Kern Kaweah Chapter
P.O. Box 3357
Bakersfield, CA 93385

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Southern California Edison
120 Woodlands Drive
Wofford Heights, CA 93285

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Southern California Edison
Planning Dept.
510 S. China Lake Blvd.
Ridgecrest, CA 93555

Chumash Council of Bakersfield
2421 "O" Street
Bakersfield, CA 93301-2441

David Laughing Horse Robinson
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Bakersfield, CA 93390

Kern Valley Indian Council
Attn: Robert Robinson, Chairperson
P.O. Box 401
Weldon, CA 93283

Kern Valley Indian Council
Historic Preservation Office
P.O. Box 401
Weldon, CA 93283

Santa Rosa Rancheria
Ruben Barrios, Chairperson
P.O. Box 8
Lemoore, CA 93245

Tejon Indian Tribe
Octavio Escobedo III, Chairman
P.O. Box 640
Arvin, CA 93203F

Kitanemuk & Yowlumne Tejon Indians
Chairperson
115 Radio Street
Bakersfield, CA 93305

Tubatulabals of Kern County
Attn: Robert Gomez, Chairperson
P.O. Box 833
Weldon, CA 93283

Tule River Indian Tribe
Neal Peyron, Chairperson
P.O. Box 589
Porterville, CA 93258

Terra-Gen Power, LLC
Randy Hoyle
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Rupal Patel
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Rick Neff
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San Francisco, CA 94104

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North America, LLC
53 SW Yamhill Street
Portland, OR 97204

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Structure Cast
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8261 McCutchen Road
Bakersfield, CA 93311

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Wind Stream, LLC
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AES Midwest Wind Gen
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Palm Springs, CA 92263-2190

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Robert Burgett
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Mojave, CA 93501

Lozeau Drury LLP
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Oakland, CA 94612

Pacific Gas and Electric Company
Electric Generation Interconnection (EGI) Department
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Mail Code N9H
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Iberdrola Renewables
Dir Tech Serv
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Portland, OR 97209

Michael Strickler
Iberdrola Renewables, Sr Proj Mgr
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Recurrent Energy
Seth Israel
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Kelly Group
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Winters, CA 95694

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Association Executive, IOM
Tehachapi Area Assoc of Realtors
803 Tucker Road
Tehachapi, CA 93561

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The Gorman Law Firm
1346 E. Walnut Street, Suite 220
Pasadena, CA 91106

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The Gorman Law Firm
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Leadership Counsel for Justice & Accountability
85350 Bagdad Ave.
Coachella, CA 92236

Leadership Counsel for Justice and Accountability
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LIUNA
6800 District Boulevard
Bakersfield CA 93313

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4220 Poplar Street
Lake Isabella, CA 93240-9536

Lozeau Drury LLP
1939 Harrison Street, Suite 150
Oakland, CA 94612

California High-Speed Rail Authority
Attn: Stefan Galvez – Director of Env. Svc.
770 L Street, Suite 620
Sacramento, CA 95814

California High Speed Rail Authority
Central California Regional Office
1111 H Street
Fresno, CA 93721

Yuhaaviatam of San Manuel Nation
Attn: Kristen Tuosto
26569 Community Center Dr
Highland, CA 92346

Twenty-Nine Palms Band of Mission Indians
Attn: Darrell Mike, Tribal Chairman
46-200 Harrison Place
Coachella, CA 92236

Yuhaaviatam of San Manuel Nation
Attn: Aleandra McCleary, Ph.D.
26569 Community Center Drive
Highland, CA 92346

Tejon Indian Tribe
Attn: Candice Garza
4941 David Road
Bakersfield, CA 93307

Torres Martinez Desert Cahuilla Indians
Attn: Michael Mirelez, Cultural Resources Coordinator
P.O. Box 1160
Thermal, CA 92274

Twenty-Nine Palms Band of Mission Indians
Attn: Anthony Madrigal Jr., Tribal Grants Administrator
46-200 Harrison Place
Coachella, CA 92236

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

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

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

Kitanemuk & Yowlumne Tejon Indians
Delia Dominguez, Chairperson
115 Radio Street
Bakersfield, CA, 93305

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Road
Banning, CA, 92220

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road
Banning, CA, 92220

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

Quechan Tribe of the Fort Yuma Reservation
Jordan Joaquin, President, Quechan Tribal Council
P.O.Box 1899
Yuma, AZ, 85366

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899
Yuma, AZ, 85366

Quechan Tribe of the Fort Yuma Reservation
Manfred Scott, Acting Chairman - Kw'ts'an Cultural Committee
P.O. Box 1899
Yuma, AZ, 85366

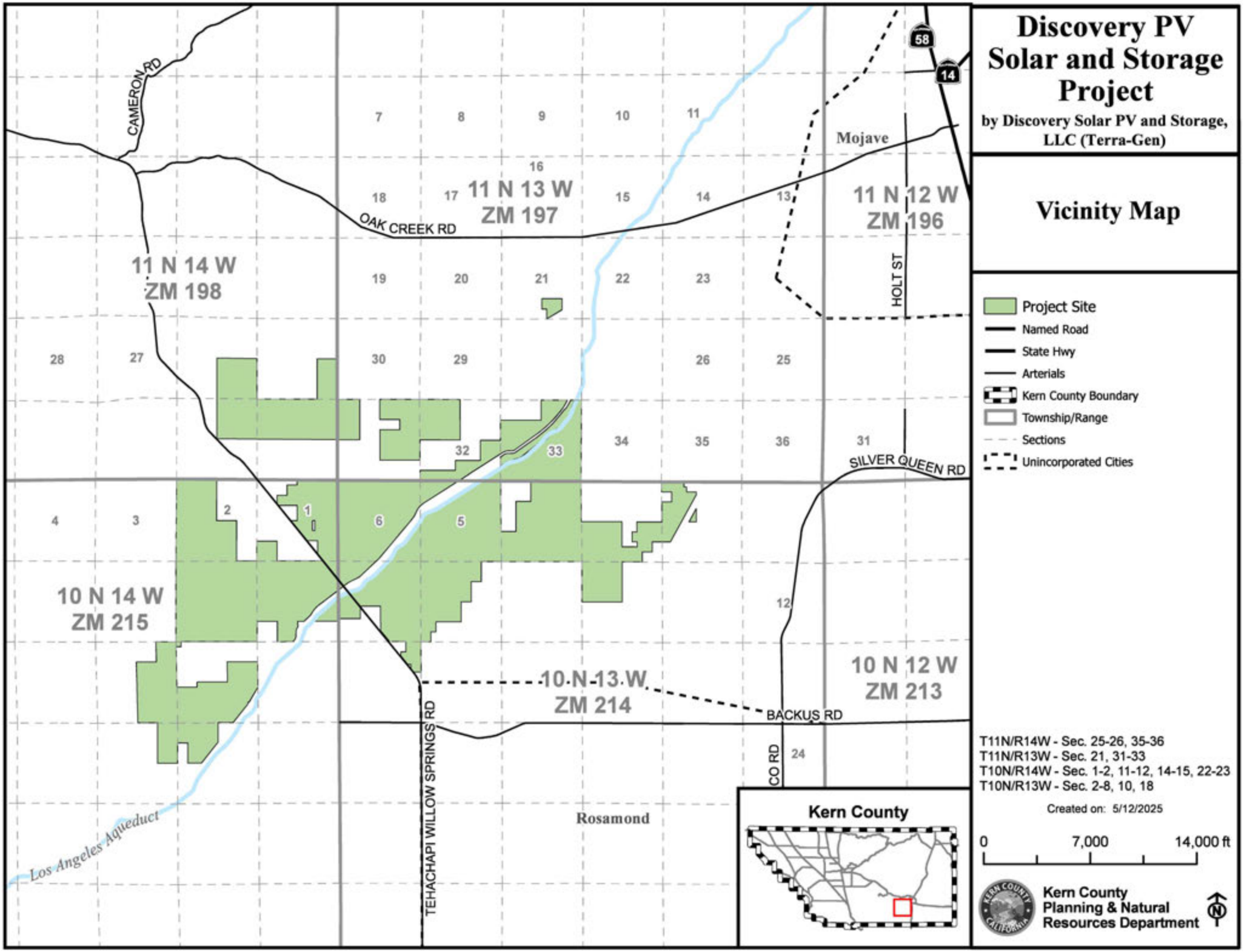
San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838
Newhall, CA, 91322

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
P. O. Box 343
Patton, CA, 92369

Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson
P. O. Box 343
Patton, CA, 92369

Tejon Indian Tribe
Candice Garza, CRM Scheduler
4941 David Road
Bakersfield, CA, 93307

Tule River Indian Tribe
Neil Peyron, Chairperson
P.O. Box 589
Porterville, CA, 93258


Discovery PV Solar and Storage Project
by Discovery Solar PV and Storage, LLC (Terra-Gen)
Vicinity Map
Project Site
Named Road
State Hwy
Arterials
Kern County Boundary
Township/Range
Sections
Unincorporated Cities
CAMERON RD
OAK CREEK RD
HOLT ST
SILVER QUEEN RD
BACKUS RD
TEHACHAPI WILLOW SPRINGS RD
CO RD
Mojave
Rosamond
Los Angeles Aqueduct
11 N 14 W ZM 198
11 N 13 W ZM 197
11 N 12 W ZM 196
10 N 14 W ZM 215
10 N 13 W ZM 214
10 N 12 W ZM 213
58
14
Kern County
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 5/12/2025
0
7,000
14,000 ft
Kern County Planning & Natural Resources Department

Notice of Completion & Environmental Document Transmittal

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

SCH #

Project Title: Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC (Terra-Gen)

Lead Agency: Kern County Planning and Natural Resources Department
Contact Person: Mark Tolentino, Planner III
Mailing Address: 2700 M Street, Suite 100
Phone: 661-862-5041
City: Bakersfield Zip: 93301 County: Kern County

Project Location: County: Kern City/Nearest Community: Mojave
Cross Streets: Tehachapi Willow Springs Road and LADWP Aqueduct Zip Code: 93560
Longitude/Latitude (degrees, minutes and seconds): 34 ° 58 ′ 47.10 ″ N / 118 ° 18 ′ 48.82 ″ W Total Acres: 7,700
Assessor's Parcel No.: 474-060-17; Multiple Section: Multiple Twp.: 10N Range: 13W Base: SBBM
Within 2 Miles: State Hwy #: SR-58 Waterways: LADWP Aqueduct
Airports: Mojave Air and Space Port Railways: Union Pacific; CAHSR (Future) Schools: Mojave Jr/Sr High

Document Type:

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

Local Action Type:

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

Development Type:

☐ Residential: Units Acres
☐ Office: Sq.ft. Acres Employees
☐ Commercial: Sq.ft. Acres Employees
☐ Industrial: Sq.ft. Acres Employees
☐ Educational:
☐ Recreational:
☐ Water Facilities: Type MGD

☐ Transportation: Type
☐ Mining: Mineral
☒ Power: Type Solar PV MW 1,400
☐ Waste Treatment: Type MGD
☐ Hazardous Waste: Type
☒ Other: Battery Energy Storage Systems (BESS) - 8 GwH/1000 MW

Project Issues Discussed in Document:

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

Present Land Use/Zoning/General Plan Designation:

Generally vacant/Various Zoning/Various General Plan Designations

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

The proposed Discovery Solar PV and Storage Project is a photovoltaic (PV) solar facility with associated infrastructure necessary to generate up to to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours (GWh) of energy storage capacity (approximately 1,000 MW) on an approximate 7,700 acre project site, across 473 privately owned parcels, in an unincorporated area of southeastern Kern County. Associated project infrastructure includes an operations and maintenance (O&M) facility, telecommunication facilities, energy storage system(s), two onsite collector substations, and temporary laydown yards. The proposed project also includes a generation-tie (gen-tie) line to connect the project to the existing Windhub Substation.

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

Reviewing Agencies Checklist

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

X	Air Resources Board		Office of Historic Preservation
	Boating & Waterways, Department of		Office of Public School Construction
	California Emergency Management Agency	X	Parks & Recreation, Department of
X	California Highway Patrol		Pesticide Regulation, Department of
X	Caltrans District # 9	X	Public Utilities Commission
X	Caltrans Division of Aeronautics	X	Regional WQCB # Central
X	Caltrans Planning	X	Resources Agency
	Central Valley Flood Protection Board		Resources Recycling and Recovery, Department of
	Coachella Valley Mtns. Conservancy		S.F. Bay Conservation & Development Comm.
	Coastal Commission		San Gabriel & Lower L.A. Rivers & Mtns. Conservancy
	Colorado River Board		San Joaquin River Conservancy
X	Conservation, Department of		Santa Monica Mtns. Conservancy
	Corrections, Department of		State Lands Commission
	Delta Protection Commission		SWRCB: Clean Water Grants
	Education, Department of	X	SWRCB: Water Quality
X	Energy Commission		SWRCB: Water Rights
X	Fish & Game Region # Fresno		Tahoe Regional Planning Agency
	Food & Agriculture, Department of	X	Toxic Substances Control, Department of
X	Forestry and Fire Protection, Department of	X	Water Resources, Department of
	General Services, Department of		
	Health Services, Department of		Other:
	Housing & Community Development		Other:
X	Native American Heritage Commission		

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

Starting Date July 31, 2025 Ending Date September 2, 2025

Lead Agency (Complete if applicable):

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

Applicant: Discovery Solar PV and Storage, LLC (Terra-Gen)
Address: 11455 El Camino Real, Suite 160
City/State/Zip: San Diego CA 92130
Phone: 415-404-0807

Signature of Lead Agency Representative: **Date:** 07/31/2025

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

NOTICE OF PREPARATION

Discovery Solar PV and Storage Project
by Discovery Solar PV and Storage, LLC (Terra-Gen)

ZCC No. 56, Map 197, ZCC No. 71, Map 198, ZCC No. 29, Map 214, ZCC No. 16, Map 215
CUP No. 22 Map 197, CUP No. 47, Map 198, CUP No. 50, Map 214,
CUP No. 51, Map 214, CUP No. 19, Map 215
ZV No. 20, Map 197, ZV No. 36, Map 198, ZV No. 15, Map 214, ZV No. 3, Map 215
GPA No. 18, Map 197 (Circulation), GPA No. 5, Map 198 (Circulation),
GPA No. 10, Map 214 (Circulation), GPA No. 7, Map 215 (Circulation)
Temporary CUP for temporary laydown area; Map 214
Vesting Tentative Parcel Maps (Multiple)

PLN 23-00706
(PP24408)

LEAD AGENCY:

Kern County Planning and Natural Resources Department
2700 M Street, Suite 100
Bakersfield, CA 93301-2370

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(661) 862-5041
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July 2025

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INTRODUCTION

Pursuant to the California Environmental Quality Act (CEQA), the Kern County Planning and Natural Resources Department (County) will initiate the preparation of an Environmental Impact Report (EIR) for the Discovery Solar PV and Storage Project (project) proposed by Discovery Solar PV and Storage, LLC (Terra-Gen) (project proponent) in the unincorporated area of southeastern Kern County, California, **Figure 1**, *Vicinity Map*.

1. Project Description

1.1 Project Characteristics

The project proposes to develop and operate a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours (GWh) of energy storage capacity (approximately 1,000 MW) on an approximate 7,700 acre project site, across 473 privately owned parcels, in an unincorporated area of southeastern Kern County, California. A 13.8-acre portion of an additional parcel located adjacent to the southern portion of the project site is proposed for a temporary, offsite construction laydown yard to supplement proposed laydown areas within the Conditional Use Permit (CUP) boundaries of the solar arrays. An additional approximate 411 acres on six (6) parcels are allotted for the proposed medium-voltage (MV) transmission and access easement. PV solar panels, a power collection system, including MV lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers will be installed onsite. Associated project infrastructure includes an operations and maintenance (O&M) facility, telecommunication facilities, energy storage system(s), two onsite collector substations, and temporary laydown yards. The proposed project also includes a generation-tie (gen-tie) line to connect the project to the existing Windhub Substation. The project may be constructed in multiple phases

The project proponent has requested Zone Classification Changes (ZCC) to change the existing base zoning district (excluding their combining zone classification) to the A (Exclusive Agriculture) District for those project parcels not already zoned A. Solar energy electrical generators are authorized within the A District with approval of CUP pursuant to Section 19.12.030.G of the Kern County Zoning Ordinance. Therefore, concurrent approval of the requested ZCCs and the CUPs, in addition to other land use entitlements listed below, are required to develop the project. Construction and operation of the proposed gen-tie lines, although proposed to be analyzed as part of the overall project, require separate land use permits granted by the Kern County General Services Division.

The overall project boundary consists of two (2) distinct interior boundaries: (1) the CUP boundary, of which acreage specifies areas designated for proposed solar array portions of the project; and, (2) the ZCC boundary, of which acreage specifies entirety of the parcels for which changes in zoning are requested. It should be noted these two boundaries are not the same and are delineated by proposed legal descriptions. Additional project components that contribute to the overall project includes areas affected by vesting tentative parcel maps, as well as accessory structures such as the MV and gen-tie corridors. See **Figure 2,** *Aerial Map***, Figure 3,** *Proposed Project CUP Boundary*, and **Figure 4,** *Proposed CUP vs. ZCC Boundaries,* for reference.

A new, 230-kilovolt (kV) transmission line extending from a collector substation located south of the Los Angeles Department of Water and Power (LADWP) aqueduct would head north and cross the LADWP aqueduct and then combine with stepped-up generation from an additional collector substation (north of the LADWP) via either a switchyard or direct connection. From there, the two circuits would be combined into a double circuit that would run north to a new 230-kV switchyard to connect and/or route the project gen-tie circuits into an existing gen-tie corridor, previously approved and constructed as part of the Sanborn Solar Project, and then west towards Southern California Edison's (SCE) Windhub Substation. The proposed transmission line would have poles at a maximum height of up to 250 feet. A 230-kV to 500-kV step-up substation, constructed north of the Windhub Substation as part of the Kern County–approved Enterprise Solar Storage Project, would step up the voltage once again prior to interconnecting with SCE's grid. The final design, layout, and required interconnection components would be determined during the detailed engineering design stage.

1.2 Project Location

The proposed project site is located at the western edge of the Antelope Valley, approximately 6 miles southwest of the community of Mojave, approximately 9 miles southeast of the City of Tehachapi, approximately 8 miles northwest of the unincorporated community of Rosamond, and approximately 20 miles west of Edwards Air Force Base. The project is located within the Monolith, Willow Springs, and Soledad Mountain U.S. Geological Survey 7.5-minute quadrangles, and spans multiple Townships, Ranges, and Sections including the following: Township 10 North, Range 13 West, Sections 2-8, 10, and 18; Township 10 North, Range 14 West, Sections 1, 2, 11, 12, 14, 15, 22, and 23; Township 11 North, Range 13 West, Sections 21, 31, 32, and 33; and Township 11 North, Range 14 West Sections 25, 26, 35, 36. The proposed project boundary is shown in **Figure 2***, Aerial Map.*

Portions of the project are adjacent to and on both sides of the Tehachapi Willow Springs Road, and the LADWP aqueduct. The proposed project boundaries are shown in **Figure 2***, Aerial Map.*

1.3 Environmental Setting

The proposed project is situated in the southeastern corner of the desert region in unincorporated Kern County. The project site is generally undeveloped land in the Mojave Desert within the Antelope Valley in southern Kern County, California. The project site is in an area of low population density southeast of the Tehachapi Mountains and is traversed by a network of dirt roads. This portion of Kern County is recognized by the National Renewable Energy Laboratory as having solar and wind resources that are suitable for renewable energy development. The project site is located in the vicinity of renewable energy development, rural residential development, livestock grazing, light and heavy industrial and mining uses, and undeveloped lands. Land owned by the Bureau of Land Management (BLM) is located immediately to the west but is located outside of the project site. Additionally, the California High Speed Rail Authority (CHSRA) is planning and permitting a high-speed train corridor from northern to southern California. The Bakersfield to Palmdale section of the high-speed train corridor was evaluated in a joint CEQA/National Environmental Policy Act document, completed in August 2021. A portion of the approved and adopted alignment crosses through part of the project site (APNs 237-093-46, 237-093-49, 237-370-01, 237-370-16, 237-380-02, 237-380-04, 237-380-07, 237-380-08, 474-010-04, 474-071-01, and 474-071-12), and accommodation may need to be made to reconfigure panels in the area to meet necessary setbacks. However, this Department has not yet received documentation indicating that the land currently required for this alignment has been secured or is controlled by the CHSRA.

The closest sensitive receptor to the project site, on land not owned by the project proponent, is a residential land use located approximately 325 feet east of Assessor's Parcel Number (APN) 474-083-07, on APN 474-082-09, in Section 2, Township 10 North Range 14 West, Zone Map 215. Additional sensitive receptors within 1,000 feet of the project site boundary, on land not owned by the project proponent, include residential land uses on APN 237-093-05, APN 346-132-06, APN 474-021-16, APN 474-040-18, APN 474-052-07, APN 474-071-13, APN 474-072-11, APN 474-081-12, and APN 474-081-27, located at distances ranging from immediately adjacent to 1,650 feet from the project site boundary. Current legal access for all existing residences will be preserved. Therefore, legal access to existing residences will not be hindered by the project.

The proposed project area has a relatively flat terrain with site elevations ranging between 2,970 and 3,760feet above mean sea level due to being south of the Tehachapi Mountains where lands gradually slope downward from the northwest towards the southeast. Additionally, the surface and near-surface soils at the project site are mapped as alluvium. Fill material associated with construction of existing onsite roadways and other infrastructure is also anticipated to be present at the project site. The nearest active fault is located approximately 3.2 miles northwest of the project site. Therefore, the seismic activity and soil type of the project area contribute to soil stability of the proposed project site. Desert vegetation dominates the regional landscape of the proposed project site and includes Mojave Desert scrub (creosote bush scrub, cheesebush scrub), Joshua trees, and other desert species.

A majority of the proposed project site is designated as Zone "X" on the Flood Insurance Rate Map as issued by the Federal Emergency Management Agency (FEMA), which indicates the site is not in an area of flood hazard. However, as shown in **Figure 5***, Floodplain Map*, FEMA-designated flood zone, Flood Zone "A," extends through the central portion of the project, indicating that this area could flood during a 100-year flood event. The project site is not identified as a wetland area on the National Wetlands Inventory.

The proposed project site is not designated by the California Department of Conservation as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. Approximately 5,238 acres (about 68 percent) of the project site are within the boundary of Kern County Agricultural Preserve Number 24. However, none of the land within the project site is subject to a Williamson Act land use contract. Although 5,238 acres of Kern County Agricultural Preserve are within the project site, a Petition for Exclusion is not required as solar facilities subject to a CUP are permitted on lands zoned for A (Exclusive Agriculture).

Additionally, the proposed project site is not within a mineral recovery area or within a designated mineral and petroleum resource site designated by the Kern County General Plan, nor is it identified as a mineral resource zone by the Department of Conservation's State Mining and Geology Board. The project site is not located within the County's NR (Natural Resources) or PE (Petroleum Extraction) Zone Districts and based on a review of records maintained by the California Department of Conservation/California Department of Conservation Geologic Energy Management Division, there are no oil wells identified on site.

The proposed project would be served by the Kern County Sheriff's Office (KCSO) for law enforcement and public safety, Kern County Fire Department (KCFD) for fire protection, and Kern County Medical Emergency Service for emergency medical and rescue services. The nearest KCSO substation and KCFD fire station (Station No. 14) that would serve the project are both located in the community of Mojave, approximately 9 miles northeast of the project site. The nearest hospital is the Adventist Health Tehachapi Valley Hospital at 1100 Magellan Drive in the City of Tehachapi, which is approximately 9 miles northwest

of the project site. The closest school is the Mojave Junior/Senior High School, located approximately 5.5 miles northeast of the project site.

The project site is located within unincorporated Kern County and the administrative boundaries of the Kern County General Plan and Soledad Mountain Elephant Butte Specific Plan, as shown in **Table 1***, Project Assessor Parcel Numbers, Existing Land Uses, and Acreages,* and **Figure 6***, Existing General Plan Map.*

The proposed project, proposed as one singular project site, is subject to the provisions of the Kern County Zoning Ordinance and spans across Zone Maps 197, 198, 214, and 215. As shown in **Table 1** and **Figure 7***, Existing Zoning Classifications*, the project site consists of the following zoning districts: A (Exclusive Agriculture), A-1 (Limited Agriculture), Estate (E), and Platted Lands (PL). Many project parcels also contain one or multiple of the following combining districts: Floodplain (FP), Floodplain Secondary (FPS), Wind Energy (WE), and Residential Suburban (RS).

The project proponent also has requested a Zone Classification Change to change the existing zoning (excluding their combining zone classification) to Exclusive Agriculture. Solar energy electrical generators are authorized within the Exclusive Agriculture zoning district with approval of a conditional use permit.

The Mojave Air & Space Port is located approximately 9 miles northeast of the project site (as measured from the approximate center of the project). No portion of the project site, or the 230kV gen-tie line, is located within an area governed by the Kern County Airport Land Use Compatibility Plan (ALUCP).

Table 2*, Proposed Project Site and Surrounding Land Uses,* demonstrates the existing land use of the proposed project site and surrounding areas.

.

Table 1: Project Assessor Parcel Numbers, Existing and Proposed Land Use Zoning, and Acreages

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
CUP 22, MAP 197									
197	237-053-02	21.25	21.25	KCGP	8.5; 8.5/2.5	8.5; 8.5/2.5	A-1; A-1 WE	A; A WE	
197	237-053-04	21.26	21.26	KCGP	8.5	8.5	A-1; A-1 WE	A; A WE	
197	237-053-05	21.27	21.27	KCGP	8.5	8.5	A-1; A-1 WE	A; A WE	
197	237-053-06	21.28	21.28	KCGP	8.5	8.5	A-1; A-1 WE	A; A WE	
197	237-053-09	39.92	39.92	KCGP	8.5; 8.5/2.5	8.5; 8.5/2.5	A-1; A-1 FP	A; A FP	
197	237-053-10	80.06	80.06	KCGP	8.5; 8.5/2.5	8.5; 8.5/2.5	A-1; A-1 FP	A; A FP	
197	237-053-13	10.01	10.01	KCGP	8.5/2.5	8.5/2.5	A-1; A-1 FP	A; A FP	
197	237-053-14	10.02	10.02	KCGP	8.5/2.5	8.5/2.5	A-1 FP	A FP	
197	237-053-16	80.37	80.37	KCGP	8.5; 8.5/2.5	8.5; 8.5/2.5	A-1; A-1 FP	A; A FP	
197	237-054-09	10.21	10.21	KCGP	8.5	8.5	A-1	A	10.21
197	237-054-10	10.2	10.2	KCGP	8.5	8.5	A-1	A	10.2
197	237-054-11	20.38	20.38	KCGP	8.5	8.5	A-1	A	
197	237-054-12	40.77	40.77	KCGP	8.5	8.5	A-1	A	
197	237-054-13	81.52	81.52	KCGP	8.5	8.5	A-1	A	
197	237-054-25	2.53	2.53	KCGP	8.5	8.5	A-1	A	2.53
197	237-054-26	2.53	2.53	KCGP	8.5	8.5	A-1	A	2.53
197	237-054-27	2.53	2.53	KCGP	8.5	8.5	A-1	A	2.53
197	237-054-28	2.53	2.53	KCGP	8.5	8.5	A-1	A	2.53
197	237-054-30	3.06	3.06	KCGP	8.5	8.5	A-1	A	3.06
197	237-054-31	2.51	2.51	KCGP	8.5	8.5	A-1	A	2.51
197	237-054-32	2.66	2.66	KCGP	8.5	8.5	A-1	A	2.66
197	237-054-33	25.09	25.09	KCGP	8.5	8.5	A-1	A	
197	237-054-36	20.19	20.19	KCGP	8.5; 8.5/2.5	8.5; 8.5/2.5	A-1	A	20.19
197	237-054-39	10.16	10.16	KCGP	8.5/2.5	8.5/2.5	A-1	A	10.16
197	237-054-40	10.16	10.16	KCGP	8.5; 8.5/2.5	8.5; 8.5/2.5	A-1	A	10.16
197	237-054-41	29.72	29.72	KCGP	8.5	8.5	A-1	A	
197	237-054-44	5.08	5.08	KCGP	8.5	8.5	A-1	A	5.08
197	237-055-16	364.27	188	KCGP	8.5	8.5	A-1; A-1 FP	A; A FP	
197	237-055-17	20.25	20.25	KCGP	8.5	8.5	A-1	A	
197	237-055-18	20.26	20.26	KCGP	8.5	8.5	A-1	A	20.26
197	237-332-15	10.15	10.15	KCGP	8.5	8.5	A-1	A-1	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
197	237-332-16	5.08	5.08	KCGP	8.5	8.5	A-1	A-1	
197	237-332-17	5.08	5.08	KCGP	8.5	8.5	A-1	A-1	
197	237-332-18	10.15	10.15	KCGP	8.5	8.5	A-1	A-1	
197	237-332-19	5.08	5.08	KCGP	8.5	8.5	A-1	A-1	
CUP 22, MAP 197 TOTALS:		**987.5**	**811.23**						**104.61**
CUP 47, MAP 198									
198	237-093-10	50.06	50.06	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-11	10.01	10.01	KCGP	8.3	8.3	A	A	
198	237-093-12	5.01	5.01	KCGP	8.3	8.3	E(20) RS	A	5.01
198	237-093-13	10.02	10.02	KCGP	8.3	8.3	E(20) RS	A	10.02
198	237-093-14	10.02	10.02	KCGP	8.3	8.3	E(20) RS	A	10.02
198	237-093-15	5.01	5.01	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-16	5.01	5.01	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-18	50.1	50.1	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-46	39.9	39.9	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-47	40	40	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-48	40.01	40.01	KCGP	8.3	8.3	A WE; E(20) RS	A WE; A	
198	237-093-49	39.92	39.92	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-51	2.51	2.51	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-53	2.51	2.51	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-55	2.51	2.51	KCGP	8.3	8.3	E(20) RS	A	
198	237-093-56	2.51	2.51	KCGP	8.3	8.3	E(20) RS	A	
198	237-370-01	5.04	5.04	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-02	5.03	5.03	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-03	5.03	5.03	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-04	5.02	5.02	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-05	10.03	10.03	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-06	2.5	2.5	KCGP	8.5	8.5	E(2 1/2) RS	A	
198	237-370-07	2.5	2.5	KCGP	8.5	8.5	E(2 1/2) RS	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
198	237-370-08	2.5	2.5	KCGP	8.5	8.5	E(2 1/2) RS	A	
198	237-370-09	2.5	2.5	KCGP	8.5	8.5	E(2 1/2) RS	A	
198	237-370-11	10.03	10.03	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-12	5.02	5.02	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-13	2.51	2.51	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-14	2.51	2.51	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-15	5.02	5.02	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-16	10.08	10.08	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-17	2.5	2.5	KCGP	8.5	8.5	E(20) RS	A	
198	237-370-18	7.51	7.51	KCGP	8.5	8.5	A	A	
198	237-380-01	2.52	2.52	KCGP	8.5	8.5	E(20) RS	A	
198	237-380-02	2.52	2.52	KCGP	8.5	8.5	E(20) RS	A	
198	237-380-03	2.52	2.52	KCGP	8.5	8.5	E(20) RS	A	
198	237-380-04	2.52	2.52	KCGP	8.5	8.5	E(20) RS	A	
198	237-380-05	10.06	10.06	KCGP	8.5	8.5	E(20) RS	A	
198	237-380-06	40.11	40.11	KCGP	8.5	8.5	A; A WE	A; A WE	
198	237-380-07	10.07	10.07	KCGP	8.5	8.5	E(20) RS	A	
198	237-380-08	10.09	10.09	KCGP	8.5	8.5	E(20) RS	A	
198	237-400-02	10.03	10.03	KCGP	8.5	8.5	A-1	A	10.03
198	237-400-03	10.03	10.03	KCGP	8.5	8.5	A-1	A	10.03
198	237-400-05	10.03	10.03	KCGP	8.5	8.5	A-1	A	10.03
198	237-400-06	20.07	20.07	KCGP	8.5	8.5	A-1	A	20.07
198	237-400-07	10.03	10.03	KCGP	8.5	8.5	A-1	A	10.03
198	237-400-08	10.03	10.03	KCGP	8.5	8.5	A-1	A	10.03
198	237-400-11	2.51	2.51	KCGP	8.5	8.5	A-1	A	2.51
198	237-400-13	2.51	2.51	KCGP	8.5	8.5	A-1	A	2.51
198	237-400-14	2.51	2.51	KCGP	8.5	8.5	A-1	A	2.51
198	237-400-15	2.51	2.51	KCGP	8.5	8.5	A-1	A	2.51
198	237-410-01	10.02	10.02	KCGP	8.3	8.3	A; A WE	A; A WE	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
198	237-410-02	10.03	10.03	KCGP	8.3	8.3	A; A WE	A; A WE	
198	237-410-03	10.03	10.03	KCGP	8.3	8.3	E(20) RS	A	10.03
198	237-410-05	10.04	10.04	KCGP	8.3	8.3	E(20) RS	A	10.04
198	237-410-06	10.04	10.04	KCGP	8.3	8.3	E(20) RS	A	10.04
198	237-410-07	10.04	10.04	KCGP	8.3	8.3	E(20) RS	A	10.04
198	237-410-08	10.04	10.04	KCGP	8.3	8.3	E(20) RS	A	10.04
198	237-410-09	10.04	10.04	KCGP	8.3	8.3	E(20) RS	A	10.04
198	237-410-10	10.04	10.04	KCGP	8.3	8.3	E(20) RS	A	10.04
198	237-410-11	5.02	5.02	KCGP	8.3	8.3	E(20) RS	A	5.02
198	237-410-12	5.02	5.02	KCGP	8.3	8.3	E(20) RS	A	5.02
198	237-410-13	10.03	10.03	KCGP	8.3	8.3	E(20) RS	A	10.03
198	237-410-14	20.06	20.06	KCGP	8.3	8.3	E(20) RS	A	
198	237-410-15	20.06	20.06	KCGP	8.3	8.3	A; A WE	A; A WE	
198	237-410-18	10.03	10.03	KCGP	8.3	8.3	E(20) RS	A	10.03
CUP 47, MAP 198 TOTALS:		**721.65**	**721.65**						**205.68**
CUP 50, MAP 214									
214	345-011-03	160.44	160.44	KCGP	8.3	8.3	A	A	
214	345-011-07	2.51	2.51	KCGP	8.3	8.3	PL RS	A	2.51
214	345-011-08	2.5	2.5	KCGP	8.3	8.3	PL RS	A	2.5
214	345-011-09	2.5	2.5	KCGP	8.3	8.3	PL RS	A	2.5
214	345-011-10	2.5	2.5	KCGP	8.3	8.3	A	A	
214	345-011-11	2.5	2.5	KCGP	8.3	8.3	A	A	
214	345-011-12	2.5	2.5	KCGP	8.3	8.3	A	A	
214	345-011-13	2.5	2.5	KCGP	8.3	8.3	A	A	
214	345-011-14	2.5	2.5	KCGP	8.3	8.3	PL RS	A	2.5
214	345-011-15	2.5	2.5	KCGP	8.3	8.3	PL RS	A	2.5
214	345-011-16	2.5	2.5	KCGP	8.3	8.3	PL RS	A	2.5
214	345-011-24	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	345-011-25	2.49	2.49	KCGP	8.3	8.3	PL RS	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	345-011-26	9.98	7.51	KCGP	8.3	8.3	A	A	
214	345-011-31	9.98	9.98	KCGP	8.3	8.3	A	A	
214	345-011-36	2.49	2.49	KCGP	8.3	8.3	A	A	
214	345-011-37	7.48	7.48	KCGP	8.3	8.3	A	A	
214	345-011-39	10	5	KCGP	8.3	8.3	PL RS	A	
214	345-011-40	9.99	9.99	KCGP	8.3	8.3	PL RS	A	
214	345-011-41	9.98	9.98	KCGP	8.3	8.3	PL RS	A	
214	345-011-42	9.97	9.97	KCGP	8.3	8.3	A	A	
214	345-062-01	9.94	9.94	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	9.94
214	345-062-02	2.47	2.47	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-03	2.47	2.47	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-04	2.47	2.47	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-05	2.47	2.47	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-07	19.98	19.98	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-08	19.96	19.96	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-26	1.22	1.22	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-27	1.19	1.19	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-28	1.23	1.23	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-29	1.23	1.23	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-30	2.47	2.47	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	345-062-31	2.47	2.47	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-39	1.23	1.23	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-40	1.23	1.23	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-42	1.23	1.23	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-062-56	43.76	33.68	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-063-29	33.68	33.68	Soledad Mtn Elephant Butte	Low Density Residential	Low Density Residential	E(2 1/2) RS	A	
214	345-100-01	160.67	160.67	KCGP	8.3	8.3	A	A	
214	346-011-02	570.33	570.33	KCGP	8.3; 8.3/2.5; 8.4	8.3; 8.3/2.5; 8.4	A; A FP	A; A FP	
214	346-011-07	20.04	20.04	KCGP	8.3; 8.4/2.4	8.3; 8.4/2.4	A	A	
214	346-011-09	20.03	20.03	KCGP	8.3	8.3	A	A	
214	346-011-12	20.03	20.03	KCGP	8.3; 8.4	8.3; 8.4	A	A	
214	346-011-13	20.03	20.03	KCGP	8.3; 8.4	8.3; 8.4	A	A	
214	346-011-14	20.03	20.03	KCGP	8.3; 8.4/2.4	8.3; 8.4/2.4	A	A	
214	346-011-15	20.03	20.03	KCGP	8.3	8.3	A	A	
214	346-011-17	20.04	20.04	KCGP	8.3	8.3	A	A	
214	346-011-18	20.04	20.04	KCGP	8.3	8.3	A	A	
214	346-012-04	80.4	80.4	KCGP	8.3; 8.4	8.3; 8.4	A; A FP	A; A FP	
214	346-012-06	40.27	40.27	KCGP	8.3	8.3	A FP	A FP	
214	346-012-07	40.23	40.23	KCGP	8.3	8.3	A FP	A FP	
214	346-012-09	20.07	17.24	KCGP	8.3	8.3	A FP	A FP	
214	346-012-10	20.06	20.06	KCGP	8.3	8.3	A FP	A FP	
214	346-012-11	20.05	20.05	KCGP	8.3	8.3	A FP	A FP	
214	346-012-12	20.04	20.04	KCGP	8.3	8.3	A FP	A FP	
214	346-041-05	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-041-07	20.03	20.03	KCGP	8.3	8.3	A	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	346-041-08	20.03	20.03	KCGP	8.3	8.3	A	A	
214	346-041-18	2.51	2.51	KCGP	8.3	8.3	A	A	
214	346-041-19	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-041-21	2.51	2.51	KCGP	8.3	8.3	A	A	
214	346-041-22	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-041-23	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-041-24	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-041-25	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-041-28	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-041-29	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-041-32	7.51	7.51	KCGP	8.3	8.3	A	A	
214	346-042-35	9.96	9.96	KCGP	8.3	8.3	PL RS	A	
214	346-042-37	9.89	9.89	KCGP	8.3	8.3	PL RS	A	
214	346-042-39	10.01	10.01	KCGP	8.3	8.3	PL RS	A	
214	346-042-40	10.01	10.01	KCGP	8.3	8.3	PL RS	A	
214	346-042-43	2.51	2.51	KCGP	8.3	8.3	PL RS	A	
214	346-042-44	2.51	2.51	KCGP	8.3	8.3	PL RS	A	
214	346-042-45	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-042-46	2.49	2.49	KCGP	8.3	8.3	PL RS	A	
214	346-042-47	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-042-48	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-042-49	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-042-50	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-042-51	2.49	2.49	KCGP	8.3	8.3	PL RS	A	
214	346-042-52	2.49	2.49	KCGP	8.3	8.3	PL RS	A	
214	346-042-53	2.47	2.47	KCGP	8.3	8.3	PL RS	A	
214	346-042-54	2.51	2.51	KCGP	8.3	8.3	PL RS	A	
214	346-042-55	2.49	2.49	KCGP	8.3	8.3	PL RS	A	
214	346-042-56	2.49	2.49	KCGP	8.3	8.3	PL RS	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	346-042-57	2.48	2.48	KCGP	8.3	8.3	PL RS	A	
214	346-042-58	2.48	2.48	KCGP	8.3	8.3	PL RS	A	
214	346-042-59	19.97	19.97	KCGP	8.3	8.3	PL RS	A	
214	346-042-60	19.97	19.97	KCGP	8.3	8.3	PL RS	A	
214	346-042-61	20.03	20.03	KCGP	8.3	8.3	PL RS	A	
214	346-042-62	20.02	20.02	KCGP	8.3	8.3	PL RS	A	
214	346-050-03	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-04	5.01	5.01	KCGP	8.3	8.3	PL RS	A	
214	346-050-05	5.01	5.01	KCGP	8.3	8.3	PL RS	A	
214	346-050-06	5.01	5.01	KCGP	8.3	8.3	PL RS	A	
214	346-050-07	5.01	5.01	KCGP	8.3	8.3	PL RS	A	
214	346-050-13	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-14	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-15	10.02	10.02	KCGP	8.3	8.3	A	A	
214	346-050-17	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-050-18	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-050-19	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-050-20	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-050-21	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-22	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-23	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-24	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-25	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-26	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-27	10.01	10.01	KCGP	8.3	8.3	A	A	
214	346-050-28	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-050-29	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-050-30	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-050-31	2.5	2.5	KCGP	8.3	8.3	PL RS	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	346-050-32	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-050-33	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-050-35	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-050-36	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-061-01	20.35	20.35	KCGP	8.3; 8.3/2.5	8.3; 8.3/2.5	A; A FP	A; A FP	
214	346-061-04	10.17	10.17	KCGP	8.3; 8.3/2.5	8.3; 8.3/2.5	A	A	
214	346-061-05	40.25	40.25	KCGP	8.3; 8.3/2.5	8.3; 8.3/2.5	A	A	
214	346-061-06	8.7	8.7	KCGP	8.3	8.3	A; A FP	A; A FP	
214	346-061-08	10.01	10.01	KCGP	8.3	8.3	A; A FP	A; A FP	
214	346-061-09	38.3	38.3	KCGP	8.3	8.3	A FP	A FP	
214	346-061-11	10.12	10.12	KCGP	8.3	8.3	A FP	A FP	
214	346-061-12	10.12	10.12	KCGP	8.3	8.3	A FP	A FP	
214	346-061-13	5.07	5.07	KCGP	8.3	8.3	PL RS FP	A FP	5.07
214	346-061-14	5.07	5.07	KCGP	8.3	8.3	PL RS FP	A FP	5.07
214	346-061-15	5.06	5.06	KCGP	8.3	8.3	PL RS FP	A FP	5.06
214	346-061-16	5.03	5.03	KCGP	8.3	8.3	PL RS FP	A FP	5.03
214	346-061-17	5.01	5.01	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-18	5.04	5.04	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-19	2.54	2.54	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-21	2.53	2.53	KCGP	8.3	8.3	PL RS FP	A FP	2.53
214	346-061-22	2.52	2.52	KCGP	8.3	8.3	PL RS FP	A FP	2.52
214	346-061-24	5.04	5.04	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-25	5.04	5.04	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-28	20.19	20.19	KCGP	8.3	8.3	A FP	A FP	
214	346-061-29	20.23	20.23	KCGP	8.3	8.3	A FP	A FP	
214	346-061-30	7.51	7.51	KCGP	8.3	8.3	PL RS FP	A FP	7.51
214	346-061-31	8.57	8.57	KCGP	8.3	8.3	PL RS FP	A FP	8.57
214	346-061-33	19.62	19.62	KCGP	8.3	8.3	A; A FP	A; A FP	
214	346-061-35	17.64	17.64	KCGP	8.3	8.3	A	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	346-061-37	40.27	40.27	KCGP	8.3	8.3	A	A	
214	346-061-39	20.25	20.25	KCGP	8.3	8.3	A	A	
214	346-061-40	20.29	20.29	KCGP	8.3; 8.5/2.5	8.3; 8.5/2.5	A	A	
214	346-061-45	5.04	5.04	KCGP	8.3	8.3	A	A	
214	346-061-46	5.04	5.04	KCGP	8.3	8.3	A	A	
214	346-061-47	5.04	5.04	KCGP	8.3	8.3	A	A	
214	346-061-48	5.04	5.04	KCGP	8.3	8.3	A	A	
214	346-061-49	5.05	5.05	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-50	5.05	5.05	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-51	5.05	5.05	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-52	5.04	5.04	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-53	2.54	2.54	KCGP	8.3/2.5	8.3/2.5	PL RS	A	
214	346-061-54	2.54	2.54	KCGP	8.3; 8.3/2.5	8.3; 8.3/2.5	PL RS	A	
214	346-061-55	2.54	2.54	KCGP	8.3; 8.3/2.5	8.3; 8.3/2.5	PL RS	A	
214	346-061-56	2.54	2.54	KCGP	8.3; 8.3/2.5	8.3; 8.3/2.5	PL RS	A	
214	346-061-58	2.53	2.53	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-59	2.53	2.53	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-60	2.53	2.53	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-061-61	2.52	2.52	KCGP	8.3	8.3	PL RS FP	A FP	2.52
214	346-061-62	2.52	2.52	KCGP	8.3	8.3	PL RS FP	A FP	2.52
214	346-062-03	10.06	10.06	KCGP	8.3	8.3	A	A	
214	346-062-04	10.06	10.06	KCGP	8.3	8.3	A	A	
214	346-062-06	40	40	KCGP	8.3	8.3	A	A	
214	346-062-07	39.32	39.32	KCGP	8.3	8.3	A	A	
214	346-062-11	125.93	125.93	KCGP	8.3	8.3	A; A FP	A; A FP	
214	346-062-12	44.02	44.02	KCGP	8.3	8.3	A	A	
214	346-062-14	14.68	14.68	KCGP	8.3	8.3	A	A	
214	346-062-16	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-062-17	2.5	2.5	KCGP	8.3	8.3	PL RS	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	346-062-18	2.5	2.5	KCGP	8.3	8.3	PL RS	A	
214	346-062-19	44.65	44.65	KCGP	8.3	8.3	A	A	
214	346-062-23	11.27	11.27	KCGP	8.3	8.3	A	A	
214	346-062-24	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-062-25	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-062-26	2.5	2.5	KCGP	8.3	8.3	A	A	
214	346-062-27	14.61	14.61	KCGP	8.3	8.3	A	A	
214	346-062-29	2.81	2.81	KCGP	8.3	8.3	PL RS	A	
214	346-062-30	2.81	2.81	KCGP	8.3	8.3	PL RS	A	
214	346-062-31	2.81	2.81	KCGP	8.3	8.3	PL RS	A	
214	346-062-32	2.81	2.81	KCGP	8.3	8.3	PL RS	A	
214	346-062-34	2.8	2.8	KCGP	8.3	8.3	PL RS	A	
214	346-062-35	2.81	2.81	KCGP	8.3	8.3	PL RS	A	
214	346-062-36	2.81	2.81	KCGP	8.3	8.3	PL RS	A	
214	346-062-37	2.81	2.81	KCGP	8.3	8.3	PL RS	A	
214	346-062-38	2.52	2.52	KCGP	8.3	8.3	A	A	
214	346-062-39	2.52	2.52	KCGP	8.3	8.3	A	A	
214	346-062-40	2.52	2.52	KCGP	8.3	8.3	A	A	
214	346-062-41	2.52	2.52	KCGP	8.3	8.3	A	A	
214	346-062-42	2.52	2.52	KCGP	8.3	8.3	A	A	
214	346-062-44	2.52	2.52	KCGP	8.3	8.3	A	A	
214	346-062-46	2.81	2.81	KCGP	8.3	8.3	PL RS	A	2.81
214	346-062-47	2.81	2.81	KCGP	8.3	8.3	PL RS	A	2.81
214	346-062-48	2.82	2.82	KCGP	8.3	8.3	PL RS	A	
214	346-062-49	2.82	2.82	KCGP	8.3	8.3	PL RS	A	2.82
214	346-062-50	2.52	2.52	KCGP	8.3	8.3	A	A	
214	346-062-51	2.52	2.52	KCGP	8.3	8.3	A	A	
214	346-062-52	20.03	20.03	KCGP	8.3	8.3	A	A	
214	346-062-53	20.03	20.03	KCGP	8.3	8.3	A	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	346-071-01	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-02	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-03	2.51	2.51	KCGP	8.3	8.3	PL RS FP	A FP	2.51
214	346-071-04	2.51	2.51	KCGP	8.3	8.3	PL RS FP	A FP	2.51
214	346-071-05	2.51	2.51	KCGP	8.3	8.3	PL RS FP	A FP	2.51
214	346-071-06	2.51	2.51	KCGP	8.3	8.3	PL RS FP	A FP	2.51
214	346-071-07	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-08	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-09	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-10	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-15	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-16	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-17	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-18	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-23	2.74	2.74	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-24	2.78	2.78	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-25	2.73	2.73	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-071-26	2.75	2.75	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-081-01	5.02	5.02	KCGP	8.3	8.3	PL RS FP	A FP	
214	346-081-02	5.02	5.02	KCGP	8.3; 8.4	8.3; 8.4	PL RS FP	A FP	
214	346-081-03	5.02	5.02	KCGP	8.3; 8.4	8.3; 8.4	PL RS FP	A FP	
214	346-081-13	5.02	5.02	KCGP	8.3; 8.4	8.3; 8.4	PL RS FP	A FP	
214	346-081-14	5.02	5.02	KCGP	8.3; 8.4	8.3; 8.4	PL RS FP	A FP	
214	346-090-01	120.74	120.74	KCGP	8.3; 8.4	8.3; 8.4	A; A FP	A; A FP	
214	346-090-07	2.51	2.51	KCGP	8.4	8.4	PL RS	A	
214	346-090-09	2.51	2.51	KCGP	8.4	8.4	PL RS	A	
214	346-090-11	10.05	10.05	KCGP	8.3; 8.4	8.3; 8.4	A; A FP	A; A FP	
214	346-090-12	10.05	10.05	KCGP	8.3; 8.4	8.3; 8.4	A FP	A FP	
214	346-090-13	10.05	10.05	KCGP	8.3; 8.4	8.3; 8.4	A FP	A FP	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
214	346-090-14	10.05	10.05	KCGP	8.3; 8.4	8.3; 8.4	A FP	A FP	
214	346-090-19	10.05	10.05	KCGP	8.3	8.3	A FP	A FP	
214	346-090-21	10.05	10.05	KCGP	8.3	8.3	A FP	A FP	
214	346-090-22	10.06	10.06	KCGP	8.3	8.3	A FP	A FP	
214	346-090-23	10.06	10.06	KCGP	8.3	8.3	A FP	A FP	
214	346-090-24	2.51	2.51	KCGP	8.4	8.4	A	A	
214	346-090-28	2.51	2.51	KCGP	8.3	8.3	A FP	A FP	
214	346-090-29	2.51	2.51	KCGP	8.3	8.3	A FP	A FP	
214	346-090-30	5.03	5.03	KCGP	8.3	8.3	A FP	A FP	
214	346-090-33	2.51	2.51	KCGP	8.4	8.4	A	A	
214	346-090-35	2.51	2.51	KCGP	8.4	8.4	A	A	
214	346-090-36	2.51	2.51	KCGP	8.4	8.4	A	A	
214	346-090-41	2.51	2.51	KCGP	8.4	8.4	A	A	
214	346-090-42	2.51	2.51	KCGP	8.4	8.4	A	A	
214	346-132-18	2.51	2.21	KCGP	8.3	8.3	A FP	A FP	
214	346-132-19	10.03	9.5	KCGP	8.3	8.3	A FP	A FP	
214	346-132-22	2.51	2.51	KCGP	8.3	8.3	A FP	A FP	
214	346-132-23	2.51	2.51	KCGP	8.3	8.3	A FP	A FP	
214	346-132-24	2.51	2.51	KCGP	8.3	8.3	A FP	A FP	
214	346-132-25	2.51	2.51	KCGP	8.3	8.3	A FP	A FP	
214	346-132-26	5.02	5.02	KCGP	8.3	8.3	A FP	A FP	
214	346-132-27	10.04	10.04	KCGP	8.3	8.3	A FP	A FP	
214	346-132-28	10.04	9.77	KCGP	8.3	8.3	A; A FP	A; A FP	
CUP 50, MAP 214 TOTALS:		**3185.66**	**3164.18**						**89.83**
CUP 19, MAP 215									
215	474-010-04	648.95	648.95	KCGP	8.3	8.3	A	A	
215	474-010-29	107.89	107.89	KCGP	8.3	8.3	A	A	
215	474-010-30	111.23	111.23	KCGP	8.3	8.3	A	A	
215	474-010-31	107.88	107.88	KCGP	8.3	8.3	A	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
215	474-021-04	40.31	40.31	KCGP	8.3	8.3	A	A	
215	474-021-05	40.25	40.25	KCGP	8.3	8.3	A	A	
215	474-021-06	40.27	40.27	KCGP	8.3	8.3	A	A	
215	474-021-18	40.19	40.19	KCGP	8.3	8.3	A; A WE	A; A WE	
215	474-021-19	40.12	40.12	KCGP	8.3	8.3	A WE	A WE	
215	474-021-20	40.19	40.19	KCGP	8.3	8.3	A; A WE	A; A WE	
215	474-021-21	40.12	40.12	KCGP	8.3	8.3	A WE	A WE	
215	474-040-09	81.1	81.1	KCGP	8.3	8.3	A	A	
215	474-040-15	10.25	10.25	KCGP	8.3	8.3	A	A	
215	474-040-16	10.28	10.28	KCGP	8.3	8.3	A	A	
215	474-040-17	10.08	10.08	KCGP	8.3	8.3	A	A	
215	474-040-19	40.31	40.31	KCGP	8.3	8.3	A	A	
215	474-040-20	40.37	40.37	KCGP	8.3	8.3	A	A	
215	474-051-04	14.5	14.5	KCGP	8.3	8.3	A	A	
215	474-051-05	2.52	2.35	KCGP	8.3	8.3	A	A	
215	474-051-06	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-07	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-08	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-09	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-10	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-12	4.99	4.99	KCGP	8.3	8.3	A	A	
215	474-051-14	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-15	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-16	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-17	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-18	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-19	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-20	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-21	2.52	2.52	KCGP	8.3	8.3	A	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
215	474-051-22	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-23	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-24	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-25	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-26	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-27	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-28	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-29	2.52	2.52	KCGP	8.3	8.3	A	A	
215	474-051-33	20.18	17.08	KCGP	8.3	8.3	A	A	
215	474-052-01	20.27	20.27	KCGP	8.3	8.3	A	A	
215	474-052-02	10.13	10.13	KCGP	8.3	8.3	A	A	
215	474-052-03	10.13	10.13	KCGP	8.3	8.3	A	A	
215	474-052-29	20.23	20.23	KCGP	8.3	8.3	A	A	
215	474-052-31	10.1	10.1	KCGP	8.3	8.3	A	A	
215	474-052-32	7.59	7.59	KCGP	8.3	8.3	PL RS	A	7.59
215	474-052-33	2.53	2.53	KCGP	8.3	8.3	PL RS	A	2.53
215	474-060-03	10.16	10.16	KCGP	8.3	8.3	A	A	
215	474-060-05	2.53	2.53	KCGP	8.3	8.3	PL RS	A	
215	474-060-09	10.16	10.16	KCGP	8.3	8.3	A	A	
215	474-060-11	10.16	10.16	KCGP	8.3	8.3	A	A	
215	474-060-12	10.16	10.16	KCGP	8.3	8.3	A	A	
215	474-060-13	7.62	7.62	KCGP	8.3	8.3	PL RS	A	
215	474-060-14	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-15	5.08	5.08	KCGP	8.3	8.3	PL RS	A	
215	474-060-16	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-17	121.74	121.74	KCGP	8.3	8.3	A	A	
215	474-060-19	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-20	5.08	5.08	KCGP	8.3	8.3	PL RS	A	
215	474-060-21	2.54	2.54	KCGP	8.3	8.3	PL RS	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
215	474-060-22	40.65	40.65	KCGP	8.3	8.3	A	A	
215	474-060-24	10.17	10.17	KCGP	8.3	8.3	A	A	
215	474-060-25	10.17	10.17	KCGP	8.3	8.3	A	A	
215	474-060-26	10.17	10.17	KCGP	8.3	8.3	A	A	
215	474-060-27	10.17	10.17	KCGP	8.3	8.3	A	A	
215	474-060-30	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-31	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-32	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-33	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-34	5.08	5.08	KCGP	8.3	8.3	PL RS	A	
215	474-060-35	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-36	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-38	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-39	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-40	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-41	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-42	10.16	10.16	KCGP	8.3	8.3	PL RS	A	
215	474-060-43	5.08	5.08	KCGP	8.3	8.3	PL RS	A	
215	474-060-44	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-060-45	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-071-01	10.17	10.17	KCGP	8.3	8.3	A	A	
215	474-071-02	10.17	10.17	KCGP	8.3	8.3	A	A	
215	474-071-03	10.16	10.16	KCGP	8.3	8.3	A	A	
215	474-071-04	10.16	10.16	KCGP	8.3	8.3	A	A	
215	474-071-05	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-071-06	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-071-07	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-071-08	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-071-09	10.17	10.17	KCGP	8.3	8.3	A	A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
215	474-071-10	2.54	2.54	KCGP	8.3	8.3	PL RS	A	
215	474-071-11	7.62	7.62	KCGP	8.3	8.3	PL RS	A	
215	474-071-12	10.17	10.17	KCGP	8.3	8.3	A	A	
215	474-071-18	37.51	37.51	KCGP	8.3	8.3	A	A	
215	474-072-03	60.51	60.51	KCGP	8.3	8.3	A; A FPS	A; A FPS	
215	474-083-06	40.41	40.41	KCGP	8.3	8.3	A	A	
215	474-083-07	40.48	40.48	KCGP	8.3	8.3	A	A	
215	474-160-01	10.12	10.12	KCGP	8.3	8.3	A WE	A WE	
215	474-160-02	10.12	10.12	KCGP	8.3	8.3	A WE	A WE	
215	474-160-05	10.13	10.13	KCGP	8.3	8.3	A WE	A WE	
215	474-160-06	10.13	10.13	KCGP	8.3	8.3	A	A	
215	474-160-07	10.12	10.12	KCGP	8.3	8.3	A	A	
215	474-160-08	10.11	10.11	KCGP	8.3	8.3	A; A WE	A; A WE	
215	474-160-09	80.96	77.14	KCGP	8.3	8.3	A; A WE; A FP	A; A WE; A FP	
215	474-171-01	2.54	2.54	KCGP	8.3	8.3	A	A	
215	474-172-13	40.58	40.58	KCGP	8.3	8.3	A	A	
215	474-172-14	20.3	20.3	KCGP	8.3	8.3	A	A	
215	474-180-02	5.07	5.07	KCGP	8.3	8.3	A WE	A WE	
215	474-180-03	5.07	5.07	KCGP	8.3	8.3	A; A WE	A; A WE	
215	474-180-04	50.63	50.63	KCGP	8.3	8.3	A; A WE	A; A WE	
215	474-180-05	132.39	131.96	KCGP	8.3	8.3	A; A WE; A FPS	A; A WE; A FPS	
215	474-180-06	60.74	60.74	KCGP	8.3	8.3	A; A WE	A; A WE	
215	474-180-07	20.22	20.22	KCGP	8.3	8.3	A; A WE	A; A WE	
215	474-180-08	10.11	10.11	KCGP	8.3	8.3	A WE	A WE	
215	474-220-15	40.06	40.06	KCGP	8.3	8.3	A; A WE	A; A WE	
215	474-220-22	40.12	40.12	KCGP	8.3	8.3	A; A WE	A; A WE	
CUP 19, MAP 215 TOTALS:		**2780.61**	**2773.09**						**10.12**

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
Temporary Laydown Area CUP 51, MAP 214									
Temporary Laydown Area									
214	346-021-01	30.21	30.21	KCGP	8.3; 8.4/2.4	8.3; 8.4/2.4	A; A FP	N/A	
Medium-Voltage Transmission and Access Easement									
197	237-053-08	85.2	N/A	KCGP	8.5/2.5, 8.5	8.5/2.5, 8.5	A-1; A-1 FP WE; A-1 FP	N/A	
198	237-093-50	321.08	N/A	KCGP	8.5, 8.3	8.5, 8.3	A WE; E(20) RS; E(20) RS WE	N/A	
215	474-172-02	2.54	N/A	KCGP	8.3	8.3	A	N/A	
215	474-172-03	2.54	N/A	KCGP	8.3	8.3	A	N/A	
215	474-172-04	2.54	N/A	KCGP	8.3	8.3	A	N/A	
215	474-172-05	2.54	N/A	KCGP	8.3	8.3	A	N/A	
197	237-053-28	20	N/A	KCGP	8.5/2.5	8.5/2.5	A-1 FP	N/A	
197	237-054-38	20	N/A	KCGP	8.5/2.5, 8.5	8.5/2.5, 8.5	A-1	N/A	
Proposed Gen-Tie Line (new)									
197	237-332-11	10	N/A	KCGP	8.5	8.5	A-1	N/A	
197	237-114-04	2.64	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-114-03	2.53	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-114-06	2.52	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-114-07	2.52	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-114-10	2.52	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-114-09	2.52	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-114-16	2.52	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-113-13	2.52	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-113-14	2.52	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-113-15	2.52	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-113-16	2.11	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-113-09	2.11	N/A	KCGP	8.5	8.5	PL RS	N/A	
197	237-031-38	556.36	N/A	KCGP	8.5	8.5	A WE	N/A	

Case Map/Section Detail	APN	Parcel Size (Acres CAD)	CUP ACRES	General/ Specific Plan	Existing General Plan Designation	Proposed General Plan Designation	Existing Zoning	Proposed Zoning	Zone Variance Required
197	237-031-04	636.36	N/A	KCGP	8.4	8.4	A WE	N/A	
197	237-055-08	5	N/A	KCGP	8.5	8.5	A-1; A WE	N/A	
197	237-055-09	5	N/A	KCGP	8.5	8.5	A-1	N/A	
197	237-055-10	112.28	N/A	KCGP	8.5	8.5	A-1 WE; A-1	N/A	
197	237-055-12	119.37	N/A	KCGP	8.5	8.5	A-1 WE; A-1	N/A	

Note: No zone variances are requested for those parcels less than the minimum required size of 20 acres for which proposed Vesting Tentative Parcel Maps would resolve parcel size.

Table 2: Proposed Project Site and Surrounding Land Uses

Area	Existing Land Use	Existing General/Specific Plan Map Code Designation[1]	Existing Zoning Classification[2]
Project Site	Generally undeveloped/vacant land, various named and unnamed dirt roads, wind turbines and transmission lines, possible grazing.	8.3 8.3/2.5, 8.4, 8.4/2.4, 8.5/2.5, 4.1 (Low Density Residential)	A, A-1, PL, FP, FPS, RS, WE
North	Vacant land, wind and solar power facilities, Windhub Substation, CalPortland Mojave Cement Plant, Union Pacific Railroad	1.1, 7.3, 8.3, 8.4, 4.1 (Low Density Residential)	A, A-1, M-3, PL, R-2, WE, FP
East	Vacant land, residential properties	4.3, 8.3, 4.1 (Low Density Residential)	A, A-1, E, PL
South	Vacant land, Catalina Solar Project, Big Beau Solar Project, Holiday Rock Quarry, residential properties, possible grazing.	1.1, 8.2, 8.3, 8.4	A, A-1, E, FP, FPS, RS, MH, WE
West	Vacant land, residential properties, BLM land, possible grazing.	1.1, 8.2, 8.3, 8.4	A, E, OS, PL, RS, WE

1. Kern County General Plan (KCGP) and Specific Plan (SP)Map Code Designation:
   1.1 (State and Federal Land
   2.4 (Steep Slope)
   2.5 (Flood Hazard)
   4.1 (Accepted County Plan Areas)
   4.3 (Specific Plan Required)
   7.3 (Heavy Industrial)
   8.2 (Resource Agriculture)
   8.3 (Extensive Agriculture)
   8.4 (Mineral and Petroleum, Min 5 Acre Parcel Size)
   8.5 (Resource Management, Min. 20 Acre
   Parcel Size)

2. Kern County Zoning District:
   A (Exclusive Agriculture); A-1 (Limited Agriculture); E (Estate); FP (Floodplain Combining); FPS (Floodplain Secondary Combining); M-3 (Heavy Industrial); MH (Mobile Home Combining); OS (Open Space); PL (Platted Lands); R-2 (Medium Density Residential); RS (Residential Suburban Combining); WE (Wind Energy Combining)

1.4 Project Description

The proposed project includes the construction, operation, maintenance, and eventual decommissioning of an approximate 1,400 MW PV solar facility with up to 1,000 MW of battery energy storage, or up to 8,000 MWh of energy storage capacity, on approximately 7,700 acres across 473 privately owned parcels in an unincorporated area of southeastern Kern County, California. As previously mentioned, a portion of an additional parcel located adjacent to the southern portion of the project site is proposed for a temporary offsite construction laydown yard. Other laydown yards would be located within the project site boundary. The project would interconnect via new and existing gen-tie facilities to the SCE Windhub Substation, as shown in **Figure 1***, Vicinity Map*.

Infrastructure associated with the project would include PV solar generating facilities and solar modules, energy storage system(s), electrical collection system and inverters, two onsite collector substations, a switch yard, grid interconnection, an O&M facility, telecommunication facilities, site access and security, which are described in further detail in **Section 1.4**, *Project Facilities, Construction Activities, and*

Operations. Primary access to the proposed project site would be from Tehachapi-Willow Springs Road, 90th Street West, and Oak Creek Road (to the proposed switch yard).

The proposed project consists of six non-contiguous areas (five solar sites and a high-voltage switchyard). Implementation of the project as proposed includes the following requests (see **Table 1***, Assessor Parcel Numbers, Existing and Proposed Land Use Zoning, and Acreages,* **Figure 8***, Proposed Zone Classifications,* and **Figure 9***, Proposed General Plan Amendment (Circulation).*

Zone Change

(a) Zone Classification Change No. 56, Map 197 from A-1 (Limited Agriculture) to A (Exclusive Agriculture) on approximately 357.88 acres, A-1 FP (Limited Agriculture, Floodplain Combining) to A FP (Exclusive Agriculture, Floodplain Combining) on approximately 10.02 acres, A-1 (Limited Agriculture) and A-1 FP (Limited Agriculture, Floodplain Combining) to A FP (Exclusive Agriculture, Floodplain Combining) on approximately 170.27 acres, A-1 (Limited Agriculture) and A-1 WE (Limited Agriculture, Wind Energy Combining) to A (Exclusive Agriculture) and A WE (Exclusive Agriculture, Wind Energy Combining) on approximately 449.33 acres, for a total of approximately 987.5 acres;

(b) Zone Classification Change No. 71, Map 198 from A-1 (Limited Agriculture) to A (Exclusive Agriculture) on approximately 80.26 acres, E(2.5) RS (Estate 2.5 acres, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 10 acres, E (20) RS (Estate 20 Acres, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 493.64 acres, A WE (Exclusive Agriculture, Wind Energy Combining) and E (20) RS (Estate 20 Acres, Residential Suburban Combining) to A WE (Exclusive Agriculture, Wind Energy Combining) on approximately 40.01 acres, and A (Exclusive Agriculture) on approximately 40 acres, for a total of approximately 623.91 acres;

(c) Zone Classification Change No. 29, Map 214 from E (2.5) RS (Estate 2.5 Acres, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 150.7 acres, PL RS (Platted Lands, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 308.69 acres, PL RS FP (Platted Lands, Residential Suburban Combining, Floodplain Combining) to A FP (Exclusive Agriculture, Floodplain Combining) on approximately 170.39 acres, for a total of approximately 629.78 acres;

(d) Zone Classification Change No. 16, Map 215 from PL RS (Platted Lands, Residential Suburban Combining) to A (Exclusive Agriculture) on approximately 111.71 acres.

Conditional Use Permit

(a) Conditional Use Permit No. 22, Map 197, to allow for the construction and operation of a solar facility up to 200 MW and associated infrastructure, including energy storage and a switchyard, and temporary construction staging and equipment storage on approximately 811.23 acres in an A (Exclusive Agriculture) District, pursuant to Chapter 19.12.030.G and 19.12.030.K of the Kern County Zoning Ordinance.

(b) Conditional Use Permit No. 47, Map 198, to allow for the construction and operation of a solar facility up to 150 MW and associated infrastructure, including energy storage and temporary construction staging, on approximately 721.65 acres in an A (Exclusive Agriculture) District, pursuant to Chapter 19.12.030.G and 19.12.030.K of the Kern County Zoning Ordinance.

(c) Conditional Use Permit No. 50, Map 214, to allow for the construction and operation of a solar facility up to 550 MW and associated infrastructure, including energy storage and temporary construction staging and equipment storage, on approximately 3,164.18 acres in an A (Exclusive Agriculture) District, pursuant to Chapter 19.12.030.G and 19.12.030.K of the Kern County Zoning Ordinance.

(d) Conditional Use Permit No. 19, Map 215, to allow for the construction and operation of a solar facility up to 500 MW and associated infrastructure, including energy storage and temporary construction staging and equipment storage, on approximately 2,773.09 acres in an A (Exclusive Agriculture) District, pursuant to Chapter 19.12.030.G and 19.12.030.K of the Kern County Zoning Ordinance.

General Plan Amendment (Circulation)

(a) General Plan Amendment No. 18, Map 197, to remove future road reservations on section and mid-section lines within the project boundary as called for within the Circulation Element of the Kern County General Plan, as shown in Table 3.

(b) General Plan Amendment No. 5, Map 198, to remove future road reservations on section and mid-section lines within the project boundary as called for within the Circulation Element of the Kern County General Plan, as shown in Table 3.

(c) General Plan Amendment No. 10, Map 214, to remove future road reservations on section and mid-section lines within the project boundary as called for within the Circulation Element of the Kern County General Plan, as shown in Table 3.

(d) General Plan Amendment No. 7, Map 215, to remove future road reservations on section and mid-section lines within the project boundary as called for within the Circulation Element of the Kern County General Plan, as shown in Table 3.

Zone Variance:

(a) Zone Variance No. 20, Map 197, to authorize multiple parcels of substandard size where a minimum of 20 acres is required for each change in base zoning from the A-1 (Limited Agriculture) District to the A (Exclusive Agriculture) District across approximately 104.61 total acres.

(b) Zone Variance No. 36, Map 198, to authorize multiple parcels of substandard size where a minimum of 20 acres is required for each change in base zoning from the A-1 (Limited Agriculture) District or the E(20) (Estate - 20 acres) District to the A (Exclusive Agriculture) District across approximately 205.68 total acres

(c) Zone Variance No. 15, Map 214, to authorize multiple parcels of substandard size where a minimum of 20 acres is required for each change in base zoning from the PL (Platted Lands) District to the A (Exclusive Agriculture) District across approximately 89.83 total acres.

(d) Zone Variance No. 3, Map 215, to authorize multiple parcels of substandard size where a minimum of 20 acres is required for each change in base zoning from the PL (Platted Lands) District to the A (Exclusive Agriculture) District across approximately 10.12 total acres.

Offsite Features:

a) Conditional Use Permit No. 51, Map 214, to allow for a temporary, offsite construction laydown area on approximately 13.7 acres of a 30.21 acre parcel in the A (Exclusive Agriculture) District.

b) Franchise Agreement for the right-of-way (ROW) along 90th Street to use for underground MV transmission.

Removal of Road Reservations:

The proposed project includes a request for an amendment to the Circulation Element of the Kern County General Plan to eliminate road reservations designated for potential future arterial and collector roadways along section and midsection lines within the project site. The majority of the road reservations within the General Plan are north of the LADWP aqueduct. **Table 3**, *Road Reservations Requested for Removal* below, details the designated arterial and collector road reservations within the General Plan requested for removal. The proposed removal of mid-section and section future road reservations within the Circulation Element designated roadways is shown on **Figure 9**, *Proposed General Plan Amendment (Circulation)*.

Table 3: Road Reservations Requested for Removal

Section/ Township/ Range	Type	Location	Description
Circulation Element			
26/11N/14W	Section	East	Southern half of the section line
26/11N/14W	Section	South	Eastern half of the section line
26/11N/14W	Mid-Section	East-West	Eastern half of mid-section line
26/11N/14W	Mid-Section	North-South	Southern half of mid-section line
25/11N/14W	Section	West	Southern half of the section line
25/11N/14W	Section	East	Southern half of the section line
25/11N/14W	Section	South	Southern section line
25/11N/14W	Mid-Section	East-West	Eastern half of the mid-section line
35/11N/14W	Section	East	Northern half of the eastern section line
35/11N/14W	Mid-Section	East-West	Eastern half of the mid-section line
35/11N/14W	Mid-Section	North-South	Northern half of the mid-section line
35/11N/14W	Section	South	Western half of the southern section line
35/11N/14W	Section	North	Eastern half of the northern section line
36/11N/14W	Section	North	Northern section line
36/11N/14W	Section	West	Northern half of the section line
36/11N/14W	Section	East	Eastern section line
36/11N/14W	Section	South	Eastern half of the section line
36/11N/14W	Mid-Section	East-West	Eastern and western mid-section lines
36/11N/14W	Mid-Section	North-South	Northern and southern mid-section lines
30/11N/13W	Section	South	Southern section line
30/11N/13W	Section	East	Southern half of section line
29/11N/13W	Section	South	Western half of the southern section line
28/11N/13W	Section	South	Eastern half of the section line
31/11N/13W	Section	North	Northern section line
31/11N/13W	Section	East	Eastern section line
31/11N/13W	Section	West	Western section line
31/11N/13W	Section	South	Southern section line
31/11N/13W	Mid-Section	East-West	Eastern and western mid-section lines
31/11N/13W	Mid-Section	North-South	Northern and southern mid-section lines
32/11N/13W	Section	North	Western half of the section line
32/11N/13W	Section	East	Eastern section line
32/11N/13W	Section	West	Western section line
32/11N/13W	Section	South	Southern section line
32/11N/13W	Mid-Section	East-West	Eastern and western mid-section lines
32/11N/13W	Mid-Section	North-South	Northern and southern mid-section lines
33/11N/13W	Section	North	Eastern half of the section line
33/11N/13W	Section	West	Western section line

Section/ Township/ Range	Type	Location	Description
33/11N/13W	Mid-Section	North-South	Northern half of the mid-section line
33/11N/13W	Mid-Section	East-West	Western half of the mid-section line
3/10N/14W	Section	East	Eastern section line
2/10N/14W	Section	West	Western section line
2/10N/14W	Section	East	Southern half of the section line
2/10N/14W	Section	North	Western half of the section line
2/10N/14W	Section	South	Southern section line
2/10N/14W	Mid-Section	East-West	Eastern and western mid-section lines
2/10N/14W	Mid-Section	North-South	Northern and southern mid-section lines
1/10N/14W	Section	East	Eastern section line
1/10N/14W	Section	West	Southern half of section line
1/10N/14W	Section	North	Eastern half of the section line
1/10N/14W	Section	South	Southern section line
1/10N/14W	Mid-Section	East-West	Eastern and western mid-section lines
1/10N/14W	Mid-Section	North-South	Northern and southern mid-section lines
10/10N/14W	Section	East	Eastern section line
10/10N/14W	Section	South	Eastern half of the section line
11/10N/14W	Section	North	Northern section line
11/10N/14W	Section	West	Western section line
11/10N/14W	Section	East	Eastern section line
11/10N/14W	Section	South	Southern section line
11/10N/14W	Mid-Section	East-West	Eastern and western mid-section lines
11/10N/14W	Mid-Section	North-South	Northern and southern mid-section lines
12/10N/14W	Section	East	Eastern section line
12/10N/14W	Section	North	Northern section line
12/10N/14W	Section	West	Western section line
12/10N/14W	Section	South	Western half of the section line
12/10N/14W	Mid-Section	East-West	Eastern and western mid-section lines
12/10N/14W	Mid-Section	North-South	Northern and southern mid-section line
15/10N/14W	Section	North	Eastern half of the section line
15/10N/14W	Section	East	Eastern section line
15/10N/14W	Section	South	Eastern half of the section line
15/10N/14W	Mid-Section	East-West	Eastern half of the mid-section line
15/10N/14W	Mid-Section	North-South	Northern and southern mid-section lines
14/10N/14W	Section	North	Northern section line
14/10N/14W	Section	West	Western section line
14/10N/14W	Section	East	Eastern section line
14/10N/14W	Section	South	Southern section line
14/10N/14W	Mid-Section	East-West	Eastern and western mid-section lines
14/10N/14W	Mid-Section	North-South	Northern and southern mid-section lines
13/10N/14W	Section	West	Western section line
13/10N/14W	Section	North	Western half of the section line
22/10N/14W	Section	North	Eastern half of the section line
22/10N/14W	Section	East	Northern half of the section line
23/10N/14W	Section	North	North section line
23/10N/14W	Section	West	Northern half of the section line
23/10N/14W	Mid-Section	North-South	Northern half of the mid-section line
7/10N/13W	Section	North	Northern section line
7/10N/13W	Section	West	Western section line
6/10N/13W	Section	North	Northern section line
6/10N/13W	Section	West	Western section line
6/10N/13W	Section	East	Eastern section line
6/10N/13W	Section	South	Southern section line

Section/ Township/ Range	Type	Location	Description
6/10N/13W	Mid-Section	East-West	Eastern and western mid-section lines
6/10N/13W	Mid-Section	North-South	Northern and southern mid-section lines
5/10N/13W	Section	North	Northern section line
5/10N/13W	Section	West	Northern half of the section line
Future Road Reservations			
33/11N/13W	Section	East	Eastern section line
33/11N/13W	Section	South	Southern section line
33/11N/13W	Mid-Section	North-South	Southern half of the mid-section line
33/11N/13W	Mid-Section	East-West	Eastern and western mid-section lines
34/11N/13W	Section	West	Western section line
35/11N/13W	Section	South	Western half of the section line
6/10N/13W	Section	East	Southern half of the section line
5/10N/13W	Section	East	Eastern section line
5/10N/13W	Section	South	Southern section line
5/10N/13W	Section	West	Western section line
5/10N/13W	Mid-Section	East-West	Eastern and western mid-section lines
5/10N/13W	Mid-Section	North-South	Northern and southern mid-section lines
4/10N/13W	Section	North	Northern section line
4/10N/13W	Section	West	Western section line
4/10N/13W	Section	East	Eastern section line
4/10N/13W	Section	South	Southern section line
4/10N/13W	Mid-Section	East-West	Eastern and western mid-section lines
4/10N/13W	Mid-Section	North-South	Northern and southern mid-section lines
3/10N/13W	Section	West	Western section line
3/10N/13W	Section	East	Eastern section line
3/10N/13W	Section	South	Southern section line
3/10N/13W	Mid-Section	East-West	Eastern and western mid-section lines
3/10N/13W	Mid-Section	North-South	Southern half of the mid-section lines
2/10N/13W	Section	North	Western half of the section line
2/10N/13W	Section	West	Western section line
2/10N/13W	Mid-Section	East-West	Western half of the mid-section lines
7/10N/13W	Section	West	Western section line
7/10N/13W	Section	East	Eastern section line
7/10N/13W	Section	South	Eastern half of the section line
7/10N/13W	Mid-Section	East-West	Eastern and western mid-section lines
7/10N/13W	Mid-Section	North-South	Northern and southern mid-section lines
8/10N/13W	Section	North	Northern section line
8/10N/13W	Section	West	Western section line
8/10N/13W	Section	South	Western half of the section line
8/10N/13W	Mid-Section	East-West	Eastern and western mid-section lines
8/10N/13W	Mid-Section	North-South	Northern and southern mid-section lines
9/10N/13W	Section	North	Northern section line
9/10N/13W	Section	East	Northern half of the section line
10/10N/13W	Section	North	Northern section line
10/10N/13W	Section	West	Northern half of the section line
10/10N/13W	Mid-Section	East-West	Western half of the mid-section lines
10/10N/13W	Mid-Section	North-South	Northern half of the mid-section lines
17/10N/13W	Section	North	Western half of the section line
18/10N/13W	Section	North	Eastern half of the section line
22/10N/14W	Mid-Section	East-West	Eastern half of the mid-section line
23/10N/14W	Mid-Section	East-West	Western half of the mid-section line

Vacation of Easements and Vesting Tentative Parcel Maps

It is also anticipated that many project proponent-owned parcels would be merged to the maximum extent feasible with the intention to provide access to one consolidated, large parcel in lieu of coordinating many access points to multiple, smaller parcels. Existing public access easements will be vacated through parcel maps that have been submitted separately to the Kern County Land Division Unit for review and approval.

The purpose of the request is to facilitate the optimal layout of solar panels by removal of record of unused/undeveloped public and private easements and other rights-of-way on vacant land. These easements and offers of dedication have been created by grant deed or parcel maps, and some dirt roads exist within the project footprint. As requested, the easement vacations would not eliminate any legal access for any property or persons in the area. In the cases where one of the proposed vacations removes primary access to a parcel, the project proponent would be responsible for recording private easements for access purposes prior to or concurrent with the vacation being recorded such that legal access remains. In most cases, the proposed private easements would be recorded along with the vacation of the original public easement. The parcel maps are summarized below and shown in **Figure 10**, *Vesting Tentative Parcel Map Boundaries*, and **Figure 11**, *Assessor's Parcelization Map*.

- Vesting Tentative Parcel Map No. 12587 – Proposing a merger and re-subdivision of five (5) parcels into one (1) parcel of Case Map 197, Section 31, Township 11, Range 13, Quarter of County of Kern, consisting of 220.32 acres (gross), resulting in a 220.32 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12589 – Proposing a merger and re-subdivision of four (4) parcels into one (1) parcel of Case Map 198, Parcel Map 3816, Lots 1-4 of County of Kern, consisting of 159.83 acres (gross), resulting in a 159.83 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12590 – Proposing a merger and re-subdivision of six (6) parcels into one (1) parcel of Case Map 198, Section 31, Township 11, Range 14, Quarter of County of Kern, consisting of 20.06 acres (gross), resulting in a 20.06 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12591 – Proposing a merger and re-subdivision of twenty-four (24) parcels into one (1) parcel of Case Map 198, Section 26, Township 11, Range 14, Quarter of County of Kern, consisting of 160.71 acres (gross), resulting in a 160.71 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12592 – Proposing a merger and re-subdivision of seventeen (17) parcels into one (1) parcel of Case Map 214, Section 2, Township 10, Range 13, Quarter of County of Kern, consisting of 140.76 acres (gross), resulting in a 140.76 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12593 – Proposing a merger and re-subdivision of ten (10) parcels into one (1) parcel of Case Map 214, Section 3, Township 10, Range 13, Quarter of County of Kern, consisting of 74.86 acres (gross), resulting in a 74.86 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12594 – Proposing a merger and re-subdivision of sixty-eight (68) parcels into one (1) parcel of Case Map 214, Section 4, Township 10, Range 13, Quarter of County of Kern, consisting of 502.73 acres (gross), resulting in a 502.73 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12595 – Proposing a merger and re-subdivision of fifty (50) parcels into one (1) parcel of Case Map 214, Section 6, Township 10, Range 13, Quarter of County of Kern, consisting of 530.27 acres (gross), resulting in a 530.27 acre (gross) parcel.

- Vesting Tentative Parcel Map No. 12597 – Proposing a merger and re-subdivision of nineteen (19) parcels into one (1) parcel of Case Map 214, Section 7, Township 10, Range 13, Quarter of County of Kern, consisting of 231.36 acres (gross), resulting in a 231.36 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12598 – Proposing a merger and re-subdivision of nineteen (19) parcels into one (1) parcel of Case Map 214, Section 7, Township 10, Range 13, Quarter of County of Kern, consisting of 106.21 acres (gross), resulting in a 106.21 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12599 – Proposing a merger and re-subdivision of twenty-six (26) parcels into one (1) parcel of Case Map 214, Section 8, Township 10, Range 13, Quarter of County of Kern, consisting of 336.79 acres (gross), resulting in a 336.79 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12600 – Proposing a merger and re-subdivision of four (4) parcels into one (1) parcel of Case Map 215, Section 23, Township 10, Range 14, Quarter of County of Kern, consisting of 40.47 acres (gross), resulting in a 40.47 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12601 – Proposing a merger and re-subdivision of seven (7) parcels into one (1) parcel of Case Map 215, Section 15, Township 10, Range 14, Quarter of County of Kern, consisting of 281.45 acres (gross), resulting in a 281.45 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12602 – Proposing a merger and re-subdivision of forty-seven (47) parcels into one (1) parcel of Case Map 215, Section 12, Township 10, Range 14, Quarter of County of Kern, consisting of 503.38 acres (gross), resulting in a 501.78 acre (gross) parcel.
- Vesting Tentative Parcel Map No. 12603 – Proposing a merger and re-subdivision of five (5) parcels into one (1) parcel of Case Map 215, Section 2, Township 10, Range 14, Quarter of County of Kern, consisting of 407.89 acres (gross), resulting in a 407.89 acre (gross) parcel.

Franchise Agreements:

The project also intends to enter into a franchise agreement for the ROW along 90th Street to use for underground MV transmission between two project site polygons. An application has been submitted to the Kern County General Services-Property Management Division under separate cover.

Decommissioning:

At the end of the proposed project's anticipated operational life of up to approximately 35 years, the project proponent would determine at that time whether the project site should be decommissioned and deconstructed or if it would seek an extension of its operation and the appropriate permitting pathways. If any portion of the project site is decommissioned, removal of all solar energy generation structures would be removed to facilitate conversion of the site to other uses in accordance with the applicable land use regulations in effect at that time.

The power generated on the project site would assist the state in complying with the Renewables Portfolio Standard under Senate Bill 350, which requires that by December 31, 2030, 50 percent of all electricity sold in the state shall be generated from renewable energy sources. The power generated on the project site would be sold to California investor-owned utilities, municipalities, community choice aggregators, or other purchasers in furtherance of the goals of the California Renewable Energy Portfolio Standard.

1.5 Project Facilities, Construction Activities, and Operations

1.5.1 Project Facilities

The project facilities would include the following components, which are described in greater detail below and shown on **Figure 12***, Proposed Site Plan*. Specifications surrounding the selection (manufacturer) of modules, racking, BESS, and inverters (among other materials) may have an ultimate impact to the internal layout of the array and BESS and placement of various elements within the project fencing and setbacks resulting in modifications that would be substantially consistent with the proposed site plan.

- Installation of up to 1,400 MW alternating current (AC) of solar PV modules, mounted on a single-axis racking and/or a fixed tilt system. The mounting systems for the modules would be mounted on steel support posts that would be pile-driven into the ground;
- Installation of energy storage facilities and accessory infrastructure that would provide energy storage capacity of up to 8 gigawatt-hours for the electrical grid;
- Two onsite collector substations, including circuit breakers, disconnect switches, metering protection equipment, and main step-up transformer(s);
- One 230-kV switchyard;
- Potential upgrades to, and installation of new circuits, lines, switches, utility poles, etc. at the 230-kV to 500-kV step-up substation located north of the SCE Windhub Substation (constructed as part of the County-approved Enterprise Solar Storage Project);
- Overhead and underground collection systems (the collection systems would be aggregated at multiple circuit breakers or MV switchgear positions within the project facilities, leading to the project collector substations);
- Telecommunication equipment, including underground and overhead fiberoptics, and meteorological data collection systems or supervisory control and data acquisition (SCADA);
- Up to two O&M facilities with approximately six permanent, full-time employees;
- Onsite access roads; and
- Perimeter security fencing and nighttime directional lighting.

1.5.2 Solar PV Generating Facilities and Solar Modules

The proposed project would use PV solar technology designed in a collection of subarrays to convert solar energy directly to electrical power for eventual export to the electrical grid. The proposed project would include installation of PV modules that would be mounted on a single-axis solar tracking system (and/or fixed tilt racking systems), as shown in **Figure 13**, *Solar Panel Elevations (Conceptual)*. The tracking system would be supported by steel posts that would be pile-driven into the ground. The modules would be made of a thin film material or crystalline silicon material which would be dark in color, highly absorptive, and have minimum reflectivity. The modules would be manufactured at an offsite location and transported to the project site.

Depending on the type of technology (modules) used, the panels would typically measure approximately 4.5 feet wide and 8 feet long with the total height of the panel system, measured from the ground surface, would be approximately 9 to 12 feet. The length of each row of panels would be up to 550 feet and would be oriented in the north-south direction in order to maximize panel surface area relative to the sun, which

is southerly in the northern hemisphere. As technology continues to advance, upgraded system dimensions that enable enhanced efficiency and output without expanding the project development footprint may be utilized.

Spacing between each row would be approximately 8 to 22 feet to allow access for maintenance and cleaning. Single-axis tracking systems would employ a motor mechanism that would allow the arrays to track the path of the sun from east to west throughout the day. In the morning, the panels would face east. The panels would slowly move to the upright position at noon and on to the west at sundown. The panels would reset to the east in the evening or early morning to receive sunlight at sunrise.

1.5.3 Battery Energy Storage System (BESS)

The proposed battery energy storage system(s) (BESS) would use direct current (DC)-coupled and/or AC-coupled battery storage. The DC energy storage system would be distributed and located throughout the solar arrays. The AC energy storage system could be either centralized and located close to one or both of the collector substations or distributed throughout the solar arrays, typical BESS facilities are depicted in **Figure 14**, *Battery Energy Storage System*.

The energy storage batteries would be housed in purpose-built outdoor enclosures, unless a single, stand-alone structure (discussed below) is utilized. Typically, such energy storage systems are based on lithium-ion battery modules installed in racks and housed in outdoor BESS enclosures. A typical BESS enclosure will house hundreds of battery modules collectively capable of storing between 0.4 to 5 MWh of energy. The modules within each enclosure would be accessed for maintenance from the cabinet's exterior via cabinet doors. To ensure safe and efficient operations, each individual module within an enclosure would be monitored and controlled, and every enclosure would be equipped with integrated operational management systems and fire and safety systems, such as heating ventilation and cooling (HVAC); gas, heat, and smoke detection; and alarms. The battery enclosures are attached to inverters which convert DC to AC (and vice-versa when charging). Starting approximately 5 years after original installation, the project proponent may be required to install additional battery modules and enclosures to augment lost storage capacity, which occurs naturally as the batteries are used. BESS augmentation would occur within areas designated for BESS, as shown on the site plans, and would ensure the Project can maintain the full energy storage capacity approved under the project. BESS augmentation would not result in increased storage capacity beyond the amount approved.

The dimensions of a typical BESS enclosure vary between manufacturers and are typically arranged in repeated "blocks" across the site. System blocks may consist of a single enclosure or several smaller enclosures set side-by-side to create banks of batteries with similar overall dimensions. Smaller enclosures are typically closely spaced and may be physically attached at the time of construction; larger enclosures are placed in smaller groupings or individually. An enclosure grouping typically consists of multiple enclosures measuring up to 22 feet in height. The number, size, layout, and capabilities of each enclosure will vary depending on the battery enclosure manufacturer design, and the BESS system manufacturer(s) selected for the project. Regardless of the system manufacturer, the project's developed footprint and overall capacity will remain substantially the same. If the battery modules are stored in a single, stand-alone structure instead of individual enclosures, the maximum height (including any screening for HVAC) of the structure would be approximately 35 feet. The batteries under this configuration would be housed in open-air-style racking (similar to computer racking) approximately 10 to 12 feet high. The associated inverters, transformers, and switchgear would be located immediately adjacent to the structure on concrete pads or on driven pier foundations.

The proposed project and its systems would be designed, constructed, and operated pursuant to the current California and local building code and California Fire Code requirements. The California Fire Code specifies maximum limits on sizing for battery systems, seismic and structural design, spacing, vehicle impact protection, testing, maintenance and repairs, battery management system monitoring, shutdown and notification requirements, automatic smoke detector requirements, automatic fire sprinkler systems and ventilation specifications. Section 1210 of the California Fire Code also requires that the battery systems be "listed," which is achieved through testing by an Occupational Safety and Health Administration-certified Nationally Recognized Testing Laboratory. The proposed project would be built and operated in accordance with these standards and codes.

The energy storage structure would also have a fire rating in conformance with County standards and specialized fire suppression systems installed for the battery rooms. All non-battery rooms would have County-approved fire suppression systems. The structure would also have HVAC cooling in the battery room to maintain energy efficiency. Power to the HVAC, lighting, and other equipment would be provided via a connection to the onsite collector substation service transformer with connection lines installed above ground and/or below ground. Generators may be required to provide backup emergency electricity for fire protection. The energy storage system would be unstaffed, with remote operational control and periodic inspections and maintenance performed as necessary.

1.5.4 Electrical Collection System and Inverters

The solar panels would be electrically connected to each other via both aboveground and underground wiring. Underground electrical cables (underground collection system) would be installed from groups of solar arrays that would be arranged into power blocks. The cables would convey DC electricity to inverters, which convert the DC electricity to AC. All electrical inverters and associated transformers would be dispersed among the solar arrays and installed on prefabricated metal skids that would sit on steel pier foundations or concrete foundations, depending on the design. The inverter pad transformers would step up the voltage of the array output to 34.5 kV, which would be collected at the onsite circuit breakers or switchgear positions. From the circuit breakers or switchgear positions, the MV collector lines would be routed underground or aboveground to onsite collector substations.

1.5.5 Collector Substations

The onsite collector substations are the termination points of the collection system of 34.5-kV AC electricity. At the collector substations, the output of the field of interconnected arrays is passed through an interconnection step-up transformer to convert it from 34.5 kV to 230 kV. Two onsite collector substations would be needed for the project, pending final engineering. Project collector substations would be constructed within the project site. Potential locations of the collector substations are shown within **Figure 12***, Proposed Site Plan*. The collector substations would host the grid intertie safety equipment and switches required to interconnect to the high-voltage transmission system. Generators for backup emergency power would be required at the collector substations. The footprint for each collector substation, approximately 500 feet in length and 400 feet in width, would be sized to accommodate all required equipment with safety-related setbacks and would consist of components up to 75 feet in height.

1.5.6 Transmission, Switchyard and Grid Interconnection

A new, 230-kV transmission line extending from a collector substation located south of the LADWP aqueduct would head north and cross the LADWP aqueduct and then combine with stepped-up generation from the collector substation north of the LADWP via either a switchyard or direct connection. From there,

the two circuits would be combined into a double circuit that would run north to a new 230-kV switchyard to connect and/or route the project gen-tie circuits into the previously constructed gen-tie corridor (approved as part of the Sanborn Solar project) north and then west towards SCE's Windhub Substation. The proposed transmission line would have poles at a maximum height of up to 250 feet. A 230-kV to 500-kV step-up substation, constructed north of the Windhub Substation as part of the County-approved Enterprise Solar Storage Project, would step up the voltage once again prior to interconnecting with SCE's grid. The final design, layout, and required interconnection components would be determined during the detailed engineering design stage.

The new high-voltage 230-kV switchyard also is expected to route gen-tie conductors for the proposed Galaxy Solar PV & Storage Project off of existing gen-tie poles and onto new transmission line poles that continue to the SCE Windhub Substation (to be permitted separately under the proposed Galaxy Solar PV & Storage Project). The Galaxy Solar PV & Storage Project is a separate solar energy project proposed by a separate legal entity (Galaxy Solar PV & Storage, LLC) on private lands under the County's land use jurisdiction. The Galaxy Solar PV & Storage Project is located approximately 9 miles east of the Project and, if approved, would construct and operate a new gen-tie line and other associated infrastructure to interconnect to the SCE Windhub Substation. The projects are expected to have different off-takers under unique power purchase agreements and to have separate interconnection agreements. If both the Project and Galaxy Solar PV & Storage Project are approved and proceed to construction, the projects would use the same high-voltage switchyard to route each project's gen-tie circuits north and then west to the SCE Windhub Substation. Using the same high-voltage switchyard for both projects would reduce the overall amount of new infrastructure required for the projects and the corresponding environmental footprint of the two solar projects by constructing a single, shared facility. However, if only the Project is approved, the high-voltage switchyard would be constructed to serve only the Project. Similarly, if only the Galaxy Solar PV & Storage Project is approved, the high-voltage switchyard would be built to serve only the Galaxy Solar PV & Storage Project. Thus, if approved, each project could and would be built and operated independently of the other. The County is preparing a separate EIR to support its review of the Galaxy Solar PV & Storage Project.

1.5.7 Telecommunication Facilities

The SCADA system is critical to the California Independent System Operator and SCE utility interconnection and provides for the proper operation and maintenance of the project. The system uses proprietary software; fiberoptic communication lines; and communication systems such as telephone and/or radio link. The SCADA system functions as a remote start, stop, reset, and safety lock out for the facility, and provides site diagnostic information from the energy generating facility. The SCADA system would also control the collector substations, allowing for fully centralized operation of the project to meet all California Independent System Operator and utility interconnection requirements.

The proposed project would use local exchange carrier services for telecommunication to support remote monitoring requirements. The proposed project would connect to telecommunication fiberoptic lines owned and managed by AT&T or an alternative provider. The cabinet holding the connection equipment would have a base of approximately 4 feet by 2 feet and would be approximately 5 feet in height. From the point of demarcation, an underground or overhead fiberoptic cable would be installed within the proposed project footprint to connect the cabinet to the SCADA equipment within the onsite collector substations.

1.5.8 Operations and Maintenance Facility

It is anticipated that approximately six (6) permanent, full-time employees would be needed to maintain the proposed project. A permanent, onsite operations and maintenance (O&M) facility and/or small satellite offices would be built onsite to facilitate rapid repair of equipment if existing, offsite O&M facilities currently under development are not utilized. If such an onsite O&M facility is constructed, it would be up to 1,000 square feet in size and would include offices, workshops, and conference rooms. The O&M facility is expected to be a prefabricated commercial structure (conex structures), as shown in **Figure 15***, Operations and Maintenance Facility*. Permanent restroom facilities with septic system/tanks and/or portable toilets would be used for sanitary purposes and water would be sourced from trucked water, well water (from onsite and/or offsite wells), and/or bottled water would be provided for staff. The proposed O&M facility would include the requisite number of parking spaces for staff and visitor vehicles and O&M equipment and would comply with Americans with Disabilities Act requirements. Power for the O&M facility would be provided by either the project's electrical generation or supplied by the local power provider. A back-up generator for critical and emergency facility services with a fuel storage tank would be installed. The O&M facility would also include approved, non-occupied storage outbuildings for hazardous waste, including lithium-ion battery storage and associated containment for oil and fuels and vehicle maintenance. The O&M facility would be sited near one of the project entrances and/or in proximity to one of the project collector substations, on APN 346-061-05 or APN 474-060-17, and access to these proposed locations would be on project access roads from 90th Street West or Tehachapi Willow-Springs Road, respectively. These locations are shown on **Figure 15***, Operations and Maintenance Facility*.

1.5.9 Site Access and Security

Access to the project site is provided via multiple existing roads; the primary roadways for local access include Tehachapi-Willow Springs Road, 90th Street West, and Backus Road. Tehachapi Willow-Springs Road bisects the project and would serve as the primary access to the project site driveways, particularly within the central and southern portions of the project site. 90th Street West, south off Oak Creek Road, would provide access to the northern portion of the project site. Backus Road would provide access to the southwestern portion of the project site. Interstate 5 is the largest highway that would provide regional access to the project vicinity from the north and the south, along with State Routes 14, 58, and 138.

Internal project access roads would be up to 25 feet wide and would be cleared and compacted for travel and access to the solar blocks and equipment within the site. These project access roads would remain in place for ongoing O&M activities after construction is completed. Dirt roads that are located within the boundaries of the project, and that are not the subject of a written easement, would be closed to third-party use for vehicular or other access. Any such third parties that may currently use these dirt roads would be rerouted to public access routes, which would remain open.

Final project access road alignments would depend on the final placement of the solar panels and on the results of field investigations, including topography and any other site-specific details to be incorporated into the final design. Should project access roads be required to cross streambed areas under the jurisdiction of the California Department of Fish and Wildlife, appropriate crossings would be installed to minimize impacts to these jurisdictional areas and comply with all California Fish and Game Code requirements, including authorization through a Streambed Alteration Agreement, as appropriate.

All fence installation requirements would be evaluated, and the best-fit scenario would be incorporated at the project site. Fencing would be installed around the perimeter of each project site, collector substation,

switchyard, and other areas requiring controlled access, as needed for safety and security purposes. Fencing would remain for the life of the project. Final fence design will be developed in consultation with appropriate agencies.

Permanent motion-sensitive, directional security lights would be installed to provide adequate illumination around the collector substation areas and points of ingress/egress. All lighting would be shielded and directed downward to minimize the potential for glare or spillover onto adjacent properties. All lighting would conform to applicable County Dark Skies Ordinance requirements. Lighting would be used from dusk to dawn once the project is operational. Motion-sensitive cameras may also be installed throughout the solar arrays at the inverters for added security. If installed, cameras would be mounted on poles approximately 20 feet in height.

1.6 Construction Activities

Construction of the proposed project is expected to last for approximately 34 months and would proceed following receipt of all permits and agency approvals. The construction activities for the proposed project are categorized into three main phases:

- Site Preparation;
- System Installation; and
- Testing, Commissioning, and Cleanup.

Additional details for construction phases and their respective durations and required equipment can be found in *Table 4, Solar PV Construction Activity, Duration, and Equipment.*

Table 4: Solar PV Construction Activity, Duration, and Equipment

Construction Phase[1]	Months	Equipment
Perimeter Fence Installation	6	Skid Steer Loaders, Pickup Trucks, Water Trucks Flatbed Trucks
Site Preparation, Clearing/Grading, and Roads	15	Water Trucks, Graders, Bulldozers, 10-Ton Rollers, Scrapers, 10-ton Rollers, Sheepsfoot Rollers, Tractors with Mower Attachments, Pickup Trucks
Underground Work (Trenching)	15	Excavators, Sheepsfoot Rollers, Water Trucks, Generators, Aussie Padder Screening Machines, 4x4 Forklifts, Utility Tractors, Pickup Trucks
System Installation	24	4x4 Forklifts, Skid Steer Loaders, Utility Tractors, all-terrain vehicles (ATVs), Pile Drivers, Pickup Trucks, Generators, School Buses
Gen-tie Construction	6	Line Truck with Spool Trailer, Boom Truck with Bucket, 80-ton Crane, Pickup Trucks
Energy Storage System	4-6	80-ton Crane, Grader, 4x4 Reach Lift, Skid Steer Loaders
Testing and Commissioning	22	Pickup Trucks
Site Cleanup and Reclamation	4	Graders, Skid Steer Loaders, Drill Seed Drums, Broadcast Seed Belts, Water Trucks

1. Construction activities will overlap.

1.6.1 Schedule and Workforce

The proposed project would be constructed by several specialized construction contractors. The onsite construction workforce is expected to peak at approximately 660 individuals; however, the average daily workforce is expected to be approximately 470 construction, supervisory, support, and construction management personnel onsite during construction. It is anticipated that the construction workforce would

generally commute to the site each day from local communities and report to designated construction laydown areas prior to the beginning of each workday. Construction staff not drawn from the local labor pool would stay in local hotels in Rosamond, Mojave, Lancaster, or other local communities.

One or more of the temporary laydown areas may be used as a parking and meeting area for construction staff. It is anticipated that the construction workforce could use State Route 58, State Route 14, Tehachapi-Willow Springs Road, Oak Creek Road, or other local roads as points of ingress/egress to the project site and that, once onsite, would access various areas via internal project access roads.

Construction would primarily occur during daylight hours, Monday through Friday, between 6:00 a.m. and 6:00 p.m.; however, some work may occur on Saturday and Sunday, as required, to meet the construction schedule and/or to promote the health and safety of workers. The Kern County Noise Ordinance (Chapter 8.36) limits noise from construction from 9:00 p.m. and 6:00 a.m. on weekdays and 9:00 p.m. to 8:00 a.m. on weekends when occurring within 1,000 feet of an occupied residential dwelling, except in certain circumstances. Project construction work would conform to the County's ordinance. Any construction activities that may need extended hours would be coordinated with the County and appropriate agencies before the activity occurs.

1.6.2 Site Preparation

Construction activities would include mowing, clearing, potential western Joshua tree translocation, excavation, and grading of the site. All applicable local, state, and federal requirements and best management practices (BMPs) would be incorporated into site preparation and construction activities at the project site. Noise-generating construction activities would follow the construction hours noted above. All stationary equipment and machines with the potential to generate a significant increase in noise or vibration levels would be located away from noise receptors to the extent feasible. Initial work on the site would involve preparing the land for installation of arrays, energy storage facilities, related infrastructure, access driveways, and temporary construction laydown areas. The construction contractor would be required to incorporate BMPs consistent with the County zoning ordinance as well as guidelines provided in the California Stormwater Quality Association's Construction Best Management Practice Handbook (CASQA 2023), including preparation of a stormwater pollution prevention plan (SWPPP) and a soil erosion and sedimentation control plan. Prior to initial construction mobilization, preconstruction surveys would be performed, and sediment and erosion controls would be installed in accordance with the approved SWPPP. Stabilized construction entrances and exits would be installed at driveways to reduce tracking of sediment onto adjacent public roadways.

Site preparation would be consistent with County BMPs and Eastern Kern Air Pollution Control District rules for dust control. The project would use construction techniques that minimize soil disturbance and allow water to continue to flow and percolate naturally across the site. Such techniques include clearing and mowing of the site, with minimal overall grading; use of disk-and-roll and micro-grading techniques; and reducing grading to the greatest extent possible to areas where site topography requires smoothing for external fence lines, roads, and project equipment. These construction techniques avoid and minimize environmental impacts, including impacts to air quality, noise, and water quality.

Site preparation would involve the removal and proper disposal of existing vegetation and debris that would unduly interfere with project construction or the health and safety of onsite personnel. Dust-minimizing techniques would be employed, such as maintaining natural vegetation where possible, using a mow-and-roll vegetation clearance strategy, placing wind control fencing, applying water (additional details on water

use are provided further below), and applying dust suppressants. Conventional grading would be performed throughout the site but minimized to the maximum extent possible to reduce unnecessary soil movement that may result in dust. Earthwork scrapers, excavators, dozers, water trucks, haul vehicles, and graders may all be used to perform grading. Land-leveling equipment, such as a smooth steel drum roller, would be used to even the surface of the ground and to compact the upper layer of soil to a value recommended by a geotechnical engineer for structural support. Access roads may be additionally compacted to 90 percent or greater, as required, to support construction and emergency vehicles. Certain access roads may also require the use of aggregate or decomposed granite to meet emergency access requirements.

Trenching would be required for placement of underground electrical and communication lines, and may include the use of trenchers, backhoes, excavators, haul vehicles, compaction equipment, and water trucks. After preparation of the site, the pads for structures, equipment enclosures, and equipment vaults would be prepared per geotechnical engineer recommendations. The collector substations and switchyard areas would have a grounding grid installed and would be covered with aggregate surfacing for safe operation. Collection and transmission structures from the collector substations to the transmission line would require drilling for foundation support, and the soils removed would be spread across the site.

Site preparation also includes the demarcation of environmentally sensitive areas identified through the environmental review processes in, and adjacent to, the project site. Demarcation would include installing flags, stakes, or fencing to discourage workers from entering sensitive areas.

1.6.3 System Installation

Erection of the solar arrays would include support structures and associated electrical equipment and cabling. Steel foundation piles would be driven into the soil using vibratory techniques. The piles are typically spaced approximately 10 to 15 feet apart and installed to a revealed height of approximately 4 feet above grade. Once the piles have been installed, the horizontal cross-members would be placed and secured. The arrays would consist of a motorized single-axis tracking system. For a single-axis tracking system, the trackers and their associated motors would be mounted to the horizontal cross-members.

Concrete would be required for the footings and pads for the collector substation transformers and switchyard equipment. Concrete may also be required for pile foundation support in the event soils prevent some piles from being driven to appropriate depths or for inverter foundations. Final concrete specifications would be determined during detailed design engineering. Concrete would be purchased from an offsite supplier and trucked onto the site. No concrete batch plants would be required onsite.

During this work, there would be multiple crews working onsite with various equipment and vehicles, including special vehicles for transporting the modules and other equipment. As the solar arrays are installed, the collector substations, high voltage components, and O&M facility would be constructed, and the electrical collection and communication systems would be installed. Within the solar fields, the electrical and communication wiring would be installed in underground trenches or placed in aboveground cable trays or cable support systems, and some of the MV collection circuits and communication systems may be on overhead lines. The wiring would connect to the appropriate electrical and communication terminations and would be checked and commissioned prior to operation.

Installation of the energy storage system would be specific to the manufacturer and model of the energy storage system selected. A typical lithium-ion, battery-based energy storage system would include installation of pour-in-place concrete footings, pad foundations, piers, and/or driven pilings. The

foundations would then be backfilled and compacted as necessary prior to installation of power conversion systems, power distribution systems, pad-mounted transformers, and battery storage enclosures. Electrical cables would be installed to connect the equipment and above-ground utilities. The circuits and control systems would be checked and tested for proper installation and functionality during commissioning prior to operation.

1.6.4 Testing, Commissioning, and Cleanup

After each major electrical system component is completed, including interconnection, high-voltage transmission, electrical collection system, and the solar arrays, the system would be thoroughly inspected and tested to ensure it is ready to carry energy. The system would then be energized, and additional testing would be done to ensure safe operation.

During construction, the site would be kept as clean as possible. After construction of the project is complete, all waste, debris, and construction equipment would be removed from the site. Temporary laydown areas or other areas disturbed during construction that are not needed for facility operations would be revegetated.

1.6.5 Construction Water Use

During project construction, water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Dust-control water may be used for ingress and egress of onsite construction vehicle equipment traffic and other construction purposes. A sanitary water supply would not be required during construction because restroom facilities would be provided by portable units to be serviced by licensed providers.

The overall construction water usage during the construction period is expected to be approximately 980 acre-feet over 26 months. The primary source of water used during construction and operations would be from two proposed wells (or any potential existing onsite wells) located on the project site. Supplemental water may be sourced from RMR Water Trucks and Rental Equipment, Inc. (RMR) and Mojave Public Utilities District (MPUD). All water sourced for the project would be derived from the unadjudicated Fremont Valley Groundwater Basin or potentially from supplemental, imported water through MPUD. Water demand during construction is expected to be the same if the project is constructed during a year with normal precipitation, a year with less-than-average precipitation, or a multiyear period of less-than-average precipitation.

1.6.6 Construction Electrical Supply

Power required for construction activities, such as temporary construction trailers, would be provided via portable generators or temporary local distribution. Generators used onsite for construction, for backup power supply, or for emergency fire protection would abide by California Air Resources Board and Eastern Kern Air Pollution Control District regulations.

1.7 Operations

The facility would operate year-round. It is anticipated that approximately six permanent, full-time employees would be needed to maintain the facility. A permanent O&M facility and/or small satellite offices may be built onsite to facilitate rapid repair of equipment. During project operations, solar panel washing is expected to occur one to two times per year and general labor (up to 10 individuals) may assist in the panel cleaning. Typical O&M activities that would occur at the site during operation include, but are

not limited to, liaison and remote monitoring; administration and reporting; semi-annual and annual services; remote operations of inverters and battery energy storage systems; site security and management; additional communication protocol; repair and maintenance of solar facilities, battery storage facilities, collector substations, electrical transmission lines, and other project facilities; battery storage facility supplemental phasing and/or augmentation; mowing and vegetation control; and periodic panel washing. As technology continues to advance, existing systems may be upgraded or replaced during operations to enhance efficiency and output without expanding the project development footprint.

1.7.1 Operation Water Use

During project operations and maintenance, it is anticipated that water would be used for solar panel washing, equipment washing, and other miscellaneous water uses including operations and maintenance building use. If an operations and maintenance facility is constructed, permanent restroom facilities with septic tanks and/or portable toilets would be used for sanitary purposes and a permanent water source in the form of trucked water, well water, or bottled water would be provided for staff.

Panel washing for a project of this size would require approximately 15 to 30 days to complete per wash cycle. Water consumption is expected to be approximately 0.28 gallon per square yard of panel, based on other similar operations. Although PV panel washing is expected to occur once per year, the panels may need to be washed up to twice a year based on site conditions. Assuming one or two solar panel wash cycle per year plus typical O&M activities, the annual water usage is expected to be approximately 20 acre-feet of water. This amount includes the water necessary for project operations, fire suppression, and site maintenance.

During operations, the water used is anticipated to be sourced from two proposed wells (or any potential existing onsite wells) located on the project site. Supplemental water may be sourced from RMR and MPUD. All water sourced for the project would be derived from the unadjudicated Fremont Valley Groundwater Basin or potentially from supplemental, imported water through MPUD. Onsite water resources would also include a number of aboveground, 10,000-30,000 gallon fire protection tanks, which would be placed at designated locations throughout the project site, including near BESS locations. Final locations and tank volumes would be subject to coordination with the Kern County Fire Department.

1.7.2 Operation Electrical Supply

Power for O&M activities would be provided by the proposed project's electrical generation, supplied by the local power provider or via portable generators. The proposed project would require power for the electrical enclosures, collector substation equipment, tracker motors (if non-self-powered single-axis trackers are used), battery storage, and plant lighting and security. Batteries in the collector substation buildings would supply backup DC power for the protection equipment. In the event emergency backup generators are required for project facilities such as collector substations and battery energy storage systems, these diesel-powered generators would meet applicable best available control technology and be operated in accordance with applicable California Air Resources Board and Eastern Kern Air Pollution Control District rules and regulations.

1.7.3 Decommissioning

The proposed project has an anticipated operational life of up to 35 years, after which the project proponent may choose to update site technology and recommission, or to decommission the site and remove the systems and their components. Because the tracking system and supporting equipment for the PV arrays

would be supported by steel posts that would be pile-driven into the ground, the land would be largely unaltered from its natural state when the arrays are removed after the project's lifetime. As discussed in more detail below, portions of the project site would require reclamation, such as areas requiring revegetation after removal of solar and/or battery storage facilities. The project site could then be converted to other uses in accordance with applicable land use regulations in effect at that time.

All decommissioning and reclamation activities would be outlined in a step-by-step Decommissioning Plan and would adhere to the requirements of the appropriate governing authorities as well as all applicable local, state, and federal requirements and BMPs. The project would include BMPs to ensure the collection and recycling of modules and batteries and to avoid the potential for modules or batteries to be disposed of as municipal waste. The proposed project is anticipated to need approximately 980 acre-feet of water during the approximate 18-24-month decommissioning process.

It is anticipated that during project decommissioning, project structures, including an onsite O&M facility (if constructed), would be removed from the site. Aboveground equipment that would be removed includes module posts and support structures, onsite transmission poles that are not shared with third parties, and the overhead collection system within the site; inverters, transformers, electrical wiring, battery storage equipment, and equipment on the inverter pads. The collector substations would be removed unless a public or private utility assumes ownership of the substations, in which case the equipment may remain onsite to be used as part of the utility service to supply other applications.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment offsite to be recycled or disposed of at an appropriately licensed disposal facility. Some materials may also be returned to the manufacturer.

Removal of the solar modules would include removing the racks on which the solar panels are attached and placing them in secure transport crates and a trailer for storage. Removal of the energy storage facility equipment would include removing the batteries, enclosures and associated inverters and control panels. Batteries would be placed in appropriate hazardous materials containers for proper handling and removal from the site. The equipment would ultimately be transported to another facility (possibly including an equipment manufacturer) or to a recycling or disposal facility. Once the solar modules have been removed, the racks would be disassembled and the structures supporting the racks would be removed. Site infrastructure would be removed, including the fences and the concrete pads that may support the inverters, transformers, and related equipment, and concrete posts would be removed to grade level. The demolition debris and removed equipment may be cut or dismantled into pieces that can be safely lifted or carried with the equipment being used. The fencing and gates would be removed, and all materials would be recycled to the extent feasible. Project roads would be restored to their preconstruction condition to the extent feasible, unless the landowner elected to retain the improved roads for access throughout that landowner's property. The area would be thoroughly cleaned, and all debris would be removed. A collection and recycling program would be executed to promote recycling of project components and minimize disposal in landfills.

As mentioned above, reclamation activities would occur as part of project decommissioning, with particular focus on removal and revegetation of any impervious surfaces associated with the solar and energy storage facilities. Reclamation activities aim to bring the project site back to similar conditions as those that existed prior to construction of the project; the goal of reclamation activities is to return the land to a condition in

which natural vegetation can successfully re-establish. Reclamation activities may include, but are not limited to, the following actions:

- Project drainage features (retention basins, etc.) would be reclaimed using suitable fill material from onsite sources.
- Roads, parking areas, and collector substation areas would be removed and reclaimed to their pre-construction conditions and topography.
- Soils would be de-compacted using a disking method, as needed.
- As needed, topsoil would be used to restore suitable conditions for vegetation growth.

1.8 Applicant Submitted Project Objectives

State CEQA Guidelines Section 15124(b) requires that a project description include a clearly written statement of objectives. The statement of objectives should include the underlying purpose of the project and may discuss the project benefits. The following are the project proponent submitted project objectives for the proposed project:

- Establish solar PV power-generation with energy storage facilities of sufficient size and configuration to produce and deliver reliable electricity in an economically feasible and commercially financeable manner that can be marketed to multiple California utility companies.
- Provide the County and the State of California, as well as utilities, with a renewable energy source adjacent to other renewable energy and infrastructure facilities that would assist in meeting obligations under several bills that collectively define California's Renewable Portfolio Standard Program, including Assembly Bill 32, the Global Warming Solutions Act, as amended by Senate Bill 32 in 2016 and Senate Bill 100. These bills call for 100 percent of all electricity sold in California to come from carbon-free resources by 2045, including 90 percent renewables by 2035 (Senate Bill 1020), while vehicles are simultaneously transitioned from internal combustion engines to zero-emission forms.
- Assist Kern County in promoting its role as the state's leading producer of renewable energy and assist California utilities in meeting their obligations under the California Public Utilities Commission's Energy Storage Framework and Design Program.
- Use proven and established PV and energy storage technology that is efficient, recyclable, and requires low maintenance.
- Maximize use of existing transmission infrastructure and transmission corridors, thereby minimizing new disturbance.
- Site and design the project in an environmentally responsible manner consistent with current Kern County guidelines including:
    a. Locating generation facilities in areas which receive intense solar radiation;
    b. Using existing electrical transmission facilities, rights-of-way, roads, and other existing infrastructure where practical;
    c. Minimizing water use; and
    d. Reducing greenhouse gas emissions.

- Use construction techniques that minimize soil disturbance, allow water to continue to flow and percolate naturally across the site, and avoid and minimize environmental impacts including impacts to air quality, noise, and water quality.
- Develop a solar PV power-generation and energy storage facility in Kern County which would support the economy by investing in the local community, provide green jobs to the County and California, and increase tax and fee revenue to the County.
- Supplement the California power grid due to the shutdown of nuclear power plants throughout the state.
- Expand the reach of renewable energy development through the development of BESS, making solar more valuable by storing energy and placing it on the grid after sunset.
- Utilize vacant land that has limited water availability for a renewable energy project.

1.9 Proposed Actions/Required Approvals

The Kern County Planning and Natural Resources Department as the CEQA Lead Agency (per CEQA Guidelines Section 15052) has primary responsibility for the Discovery Solar PV and Storage Project. To implement this project, various discretionary and ministerial permits/approvals may be required, including but not limited to:

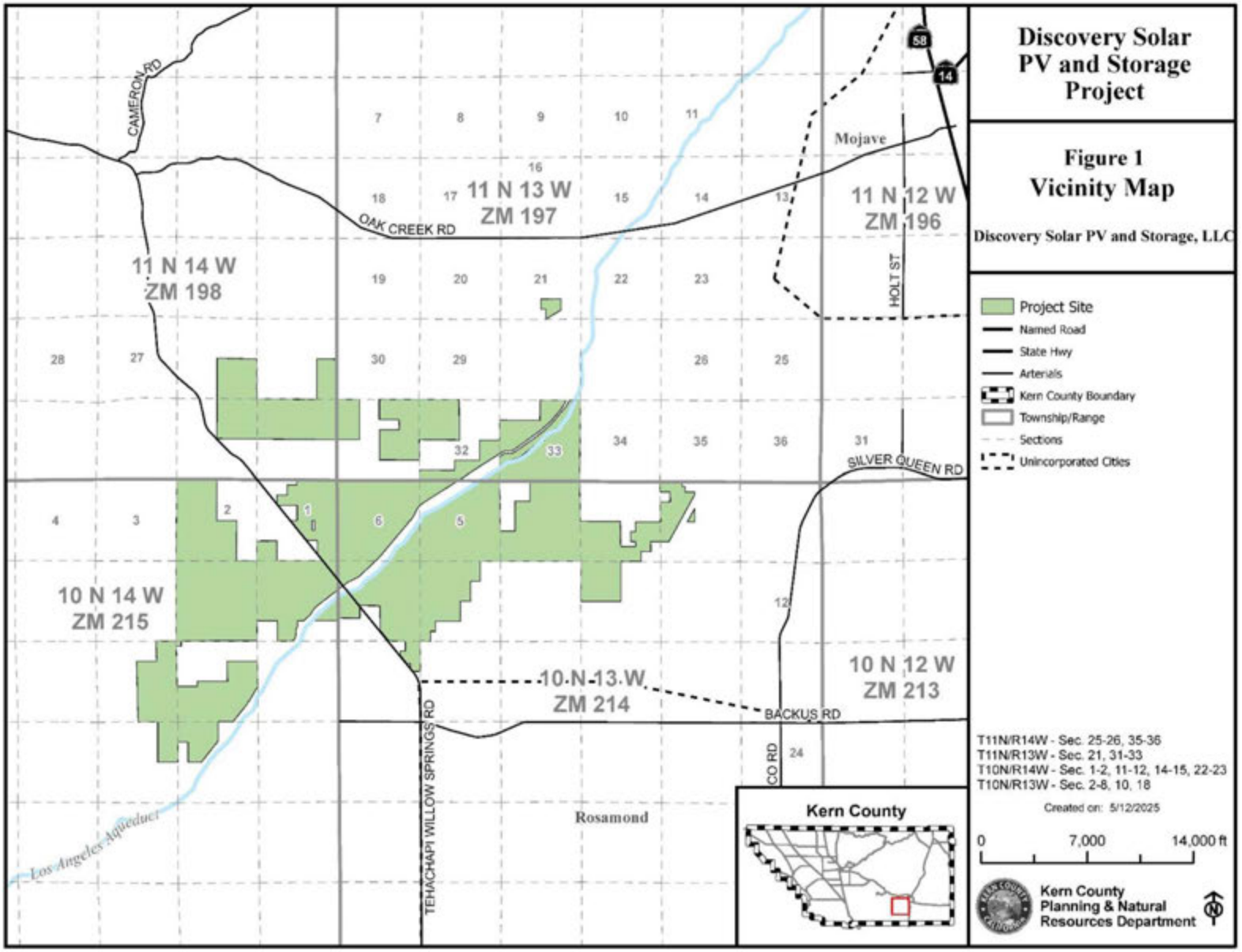
- **Federal**
  - U.S. Fish and Wildlife Service Incidental Take Permit and Habitat Conservation Plan (if sought by project proponent).
  - U.S. Army Corps of Engineers, Section 404 Permit (if required)
- **State**
  - California Public Utilities Commission
    - Approval under General Order 131-D (if required)
    - Public Utilities Crossing/Encroachment Agreements
  - California Department of Fish and Wildlife
    - Section 2081 Permit (Incidental Take Permit for state-listed species, including Western Joshua Tree under the Western Joshua Tree Conservation Act) (if sought by project proponent)
    - Section 1600 et seq. (Lake and Streambed Alteration Agreement) (if required)
  - Lahontan Regional Water Quality Control Board
    - Waste Discharge Requirements (if required)
    - Regional Water Quality Certification (401 Permit) (if required)
    - National Pollutant Discharge Elimination System Construction General Permit
  - California Department of Transportation
    - Right-of-Way Encroachment Permit (if required)
    - Permit for Transport of Oversized Loads

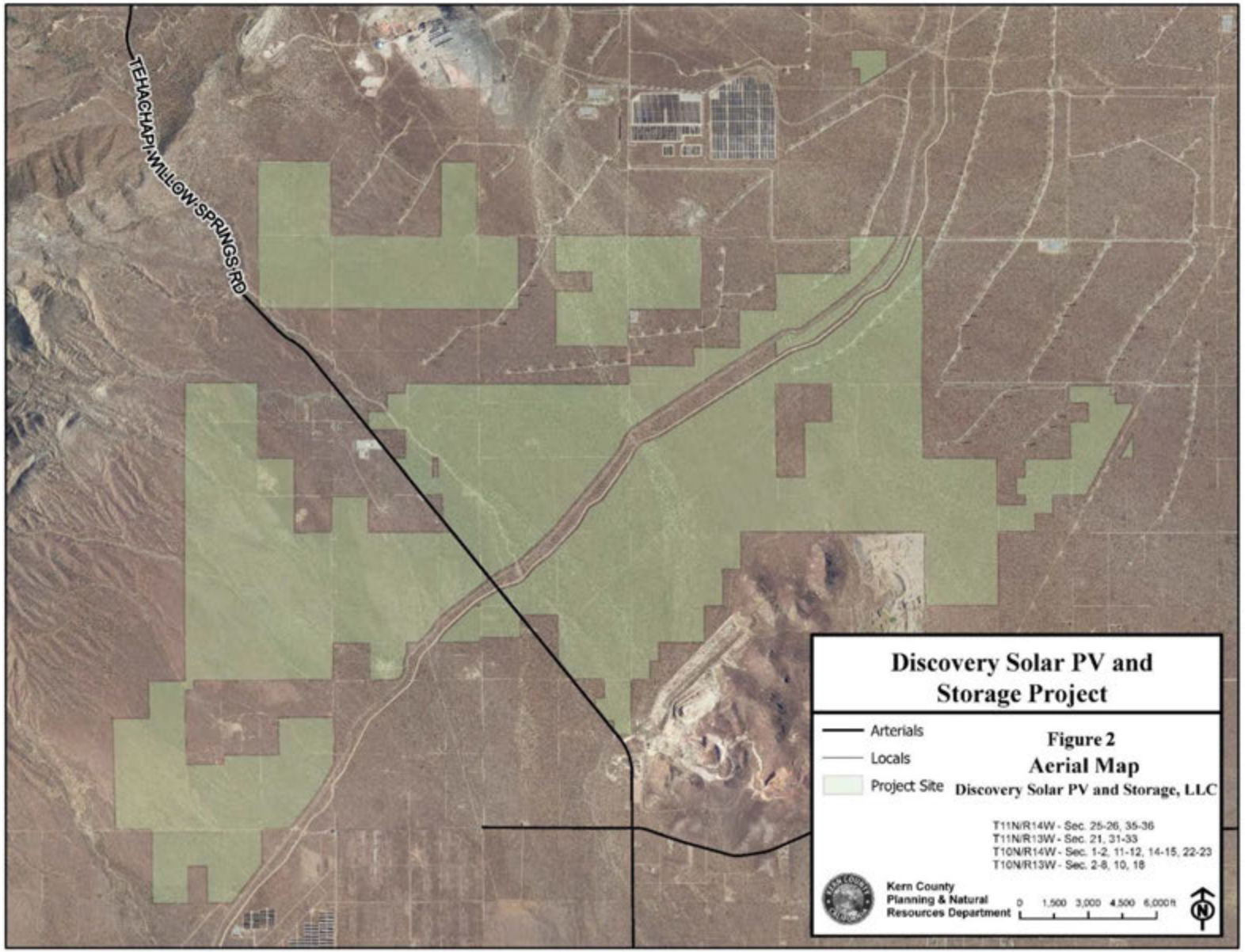
- **Local**
  - Kern County
    - Consideration and Certification of Final Environmental Impact Report
    - Adoption of 15091 Findings of Fact and 15093 Statement of Overriding Considerations
    - Adoption of Mitigation Monitoring and Reporting Program
    - Approval of Amendments to the Kern County General Plan (Circulation Element)
    - Approval of Changes in Zone Classifications
    - Approval of Conditional Use Permits for the project site
    - Approval of Zone Variances
    - Approval of Kern County Demolition Permits
    - Approval of Kern County Grading and Building Permits
    - Approval of Kern County Encroachment Permits
    - Approval of Fire Safety Plan
    - Approval of Hazardous Materials Business Plan
    - Approval of Franchise Agreement for street ROW along 90th Street
    - Approval of Parcel Maps (parcel mergers) by the Kern County Land Division Unit
  - Eastern Kern Air Pollution Control District
    - Approval of Fugitive Dust Control Plan
    - Authority to Construct
    - Permit to Operate
  - LADWP
    - Crossing Agreement

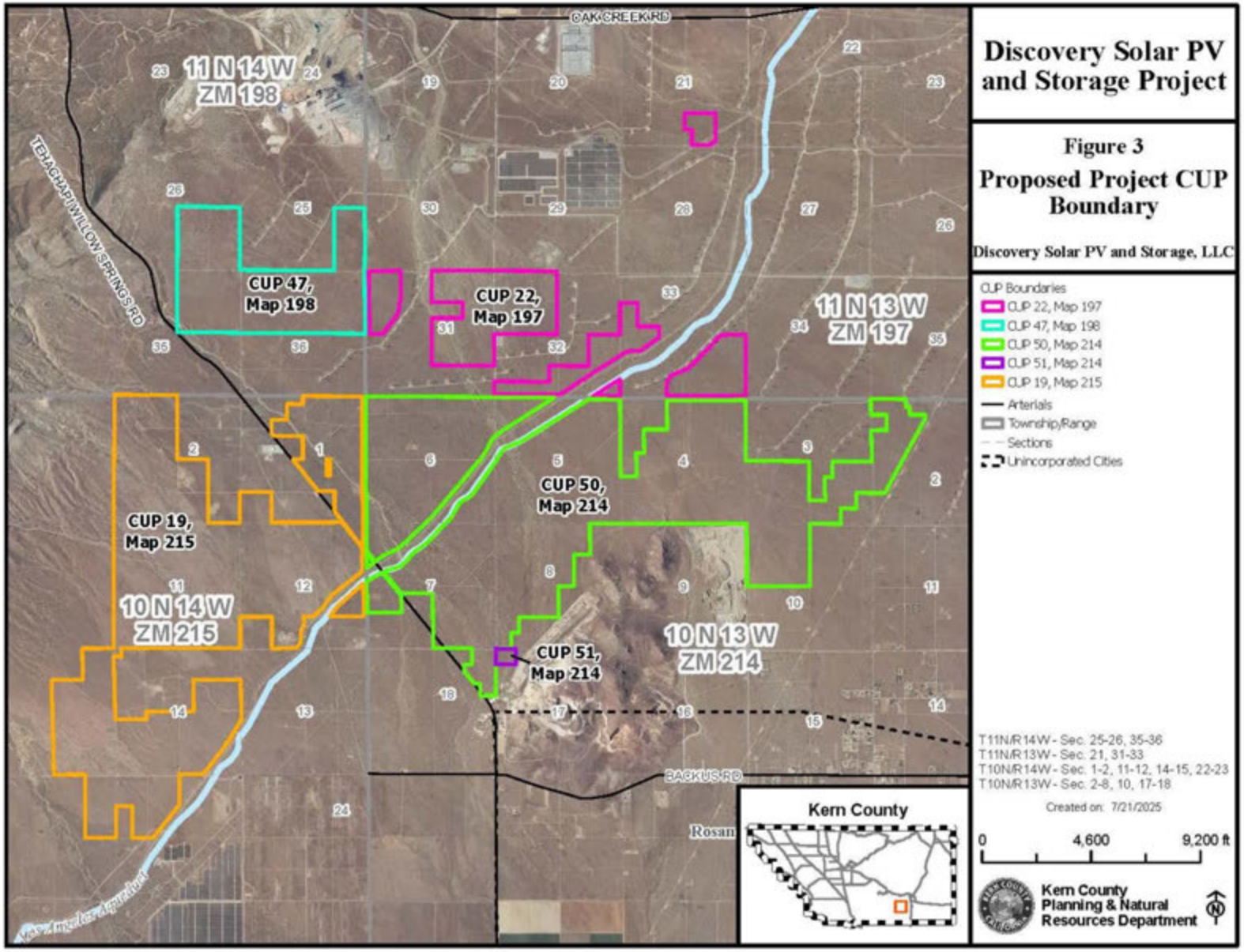
The preceding actions/approvals are potentially required and do not necessarily represent a comprehensive list of all possible permits/approvals required. Other additional permits or approvals from responsible agencies may be required for the proposed project.

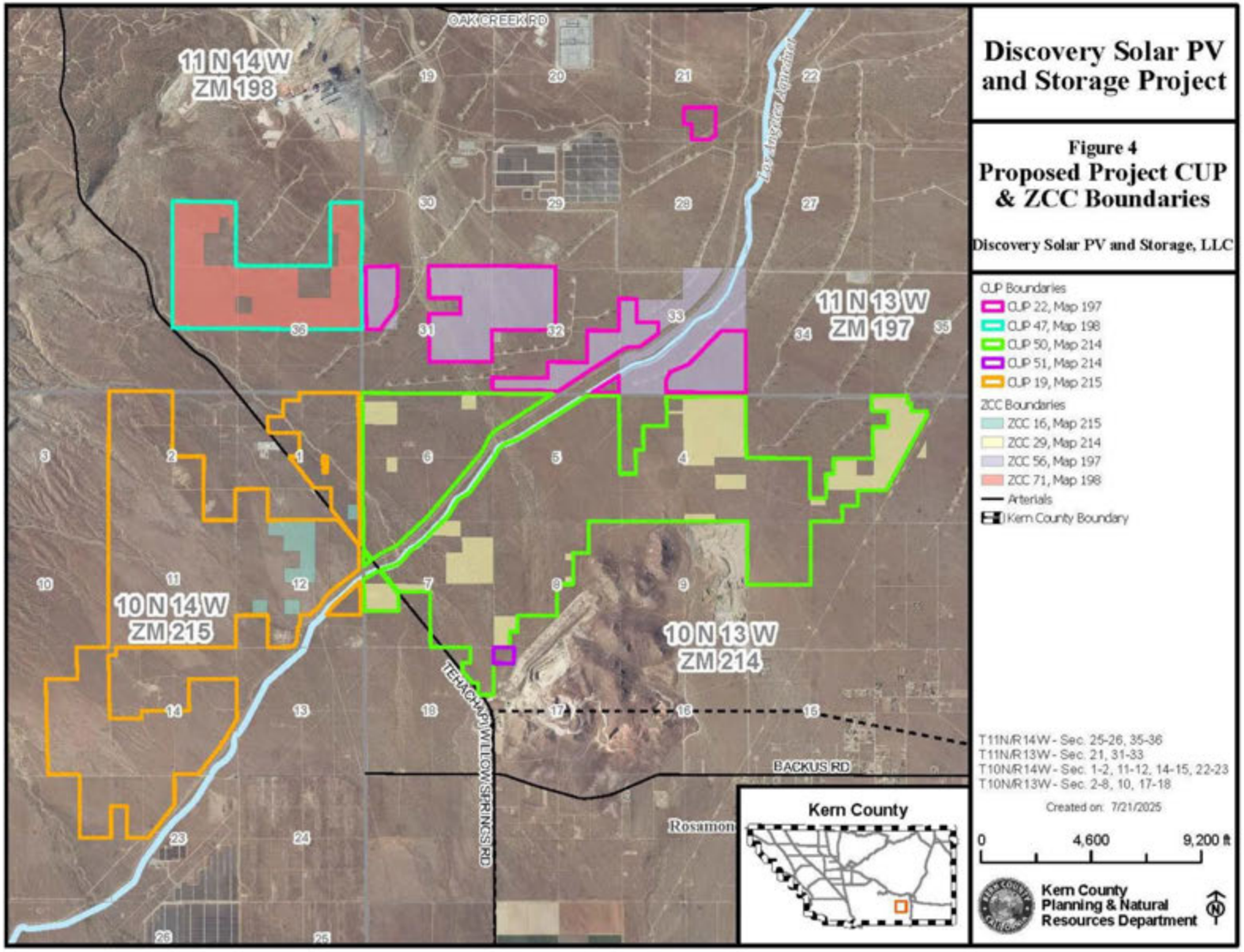
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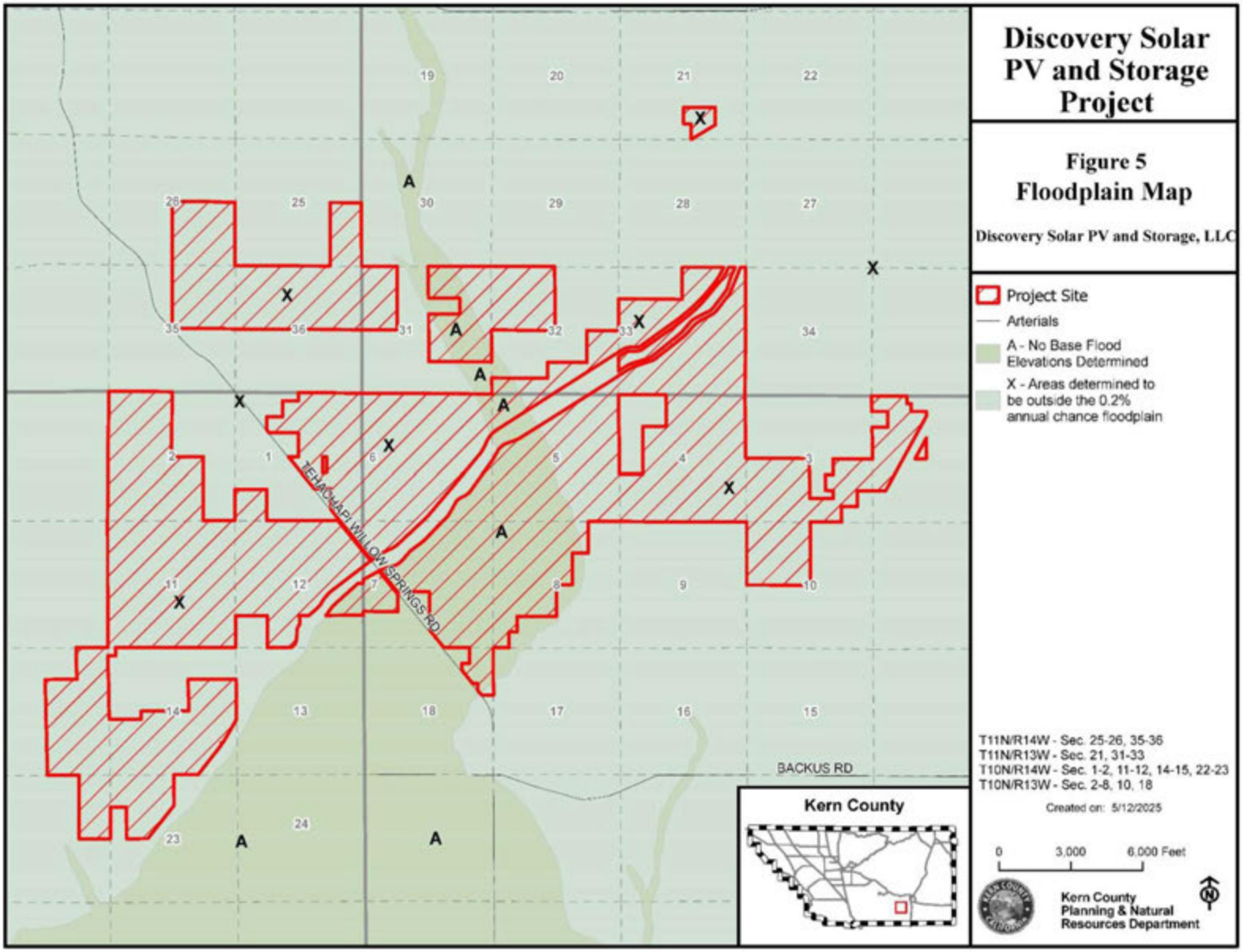
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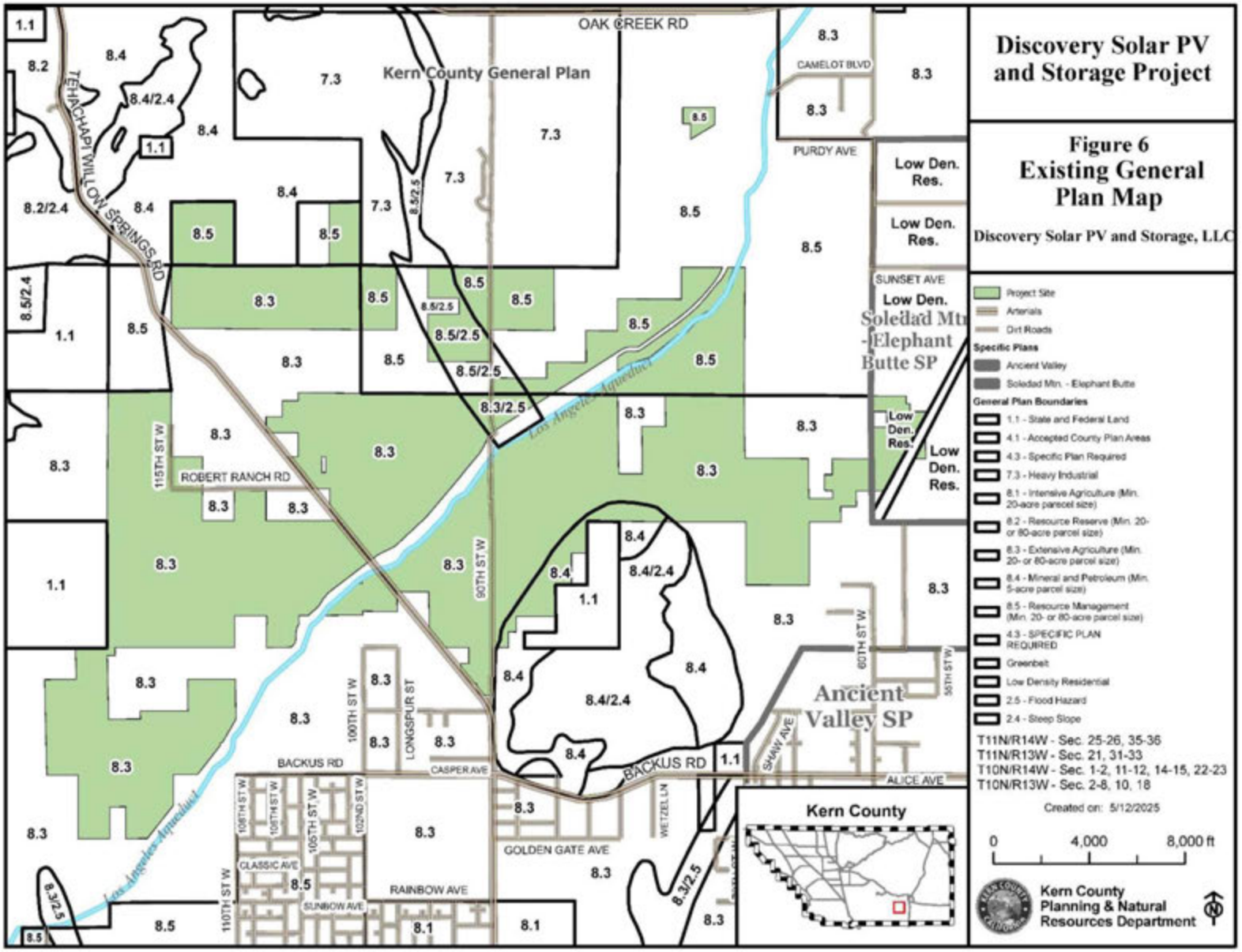

Discovery Solar PV and Storage Project
Figure 1
Vicinity Map
Discovery Solar PV and Storage, LLC
CAMERON RD
OAK CREEK RD
HOLT ST
SILVER QUEEN RD
BACKUS RD
CO RD
TEHACHAPI WILLOW SPRINGS RD
Los Angeles Aqueduct
Mojave
Rosamond
11 N 14 W
ZM 198
11 N 13 W
ZM 197
11 N 12 W
ZM 196
10 N 14 W
ZM 215
10 N 13 W
ZM 214
10 N 12 W
ZM 213
Project Site
Named Road
State Hwy
Arterials
Kern County Boundary
Township/Range
Sections
Unincorporated Cities
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 5/12/2025
0
7,000
14,000 ft
Kern County
Planning & Natural
Resources Department
Kern County

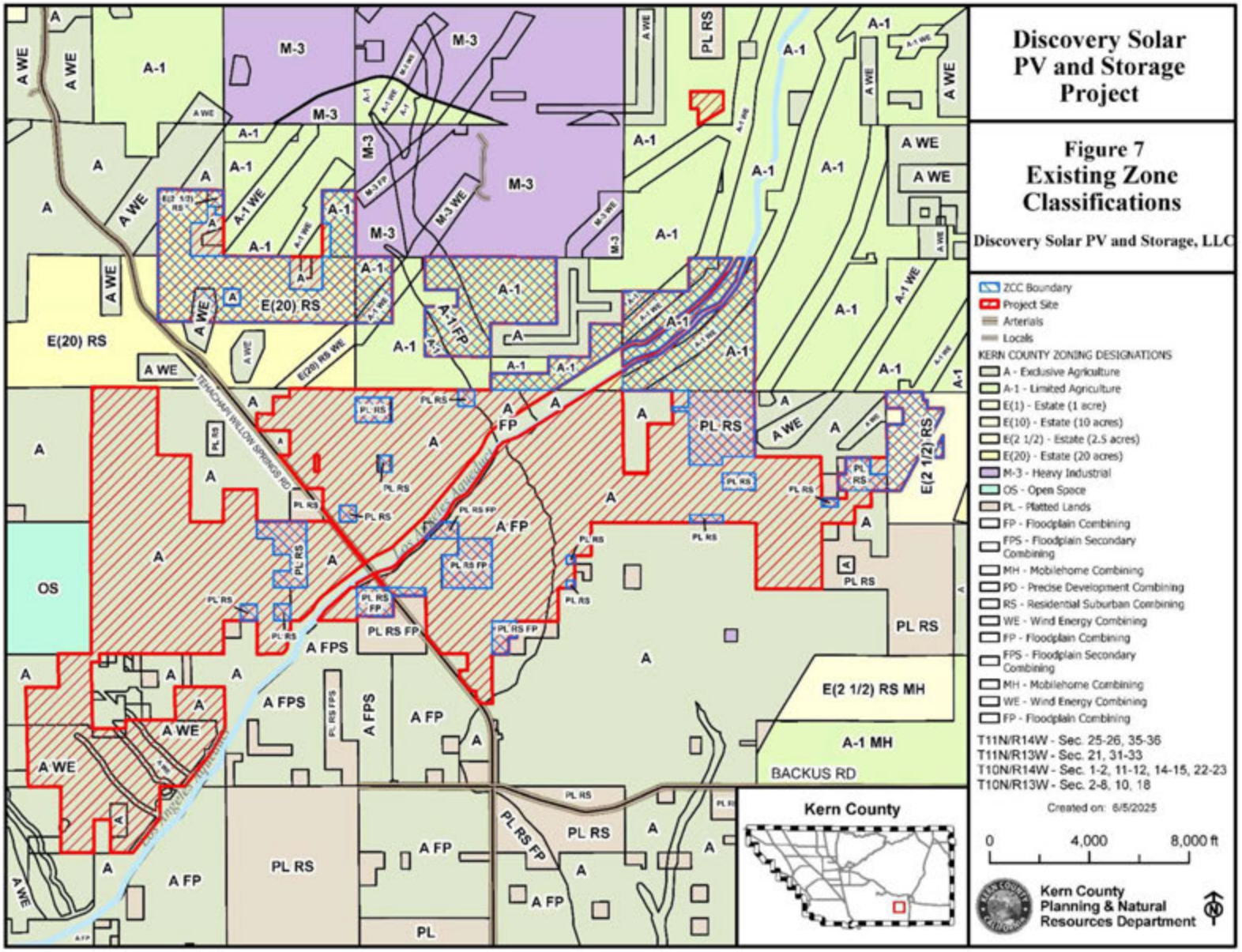

TEHACHAPI WILLOW SPRINGS RD
Discovery Solar PV and Storage Project
Arterials
Locals
Project Site
Figure 2
Aerial Map
Discovery Solar PV and Storage, LLC
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Kern County Planning & Natural Resources Department
0 1,500 3,000 4,500 6,000 ft
N

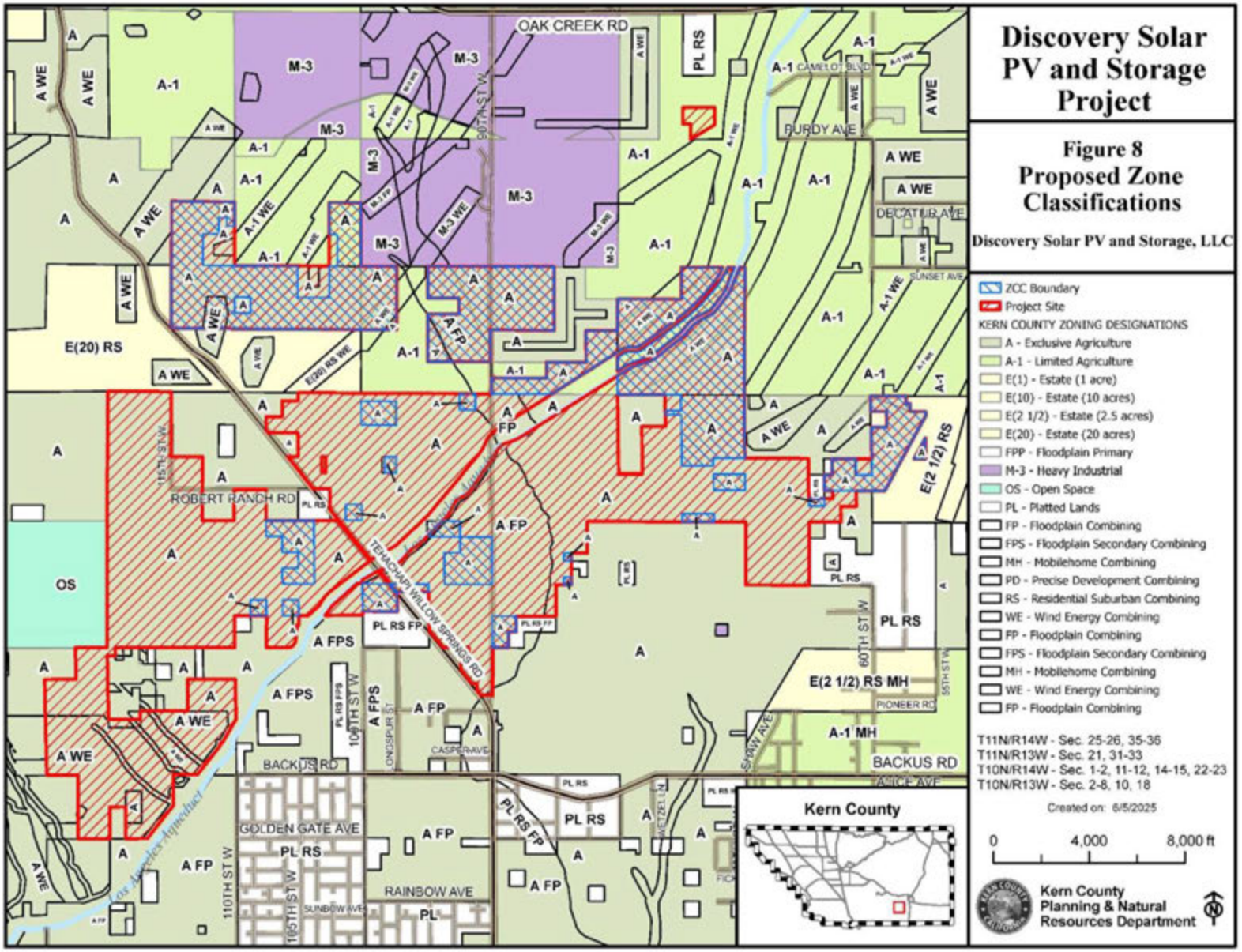

OAK CREEK RD
11 N 14 W
ZM 198
TEHACHAPI/WILLOW SPRINGS RD
CUP 47,
Map 198
CUP 22,
Map 197
11 N 13 W
ZM 197
CUP 50,
Map 214
CUP 19,
Map 215
10 N 14 W
ZM 215
CUP 51,
Map 214
10 N 13 W
ZM 214
BACKUS RD
Rosamond
Discovery Solar PV and Storage Project
Figure 3
Proposed Project CUP Boundary
Discovery Solar PV and Storage, LLC
CUP Boundaries
CUP 22, Map 197
CUP 47, Map 198
CUP 50, Map 214
CUP 51, Map 214
CUP 19, Map 215
Arterials
Township/Range
Sections
Unincorporated Cities
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 17-18
Created on: 7/21/2025
0
4,600
9,200 ft
Kern County
Planning & Natural
Resources Department
Kern County

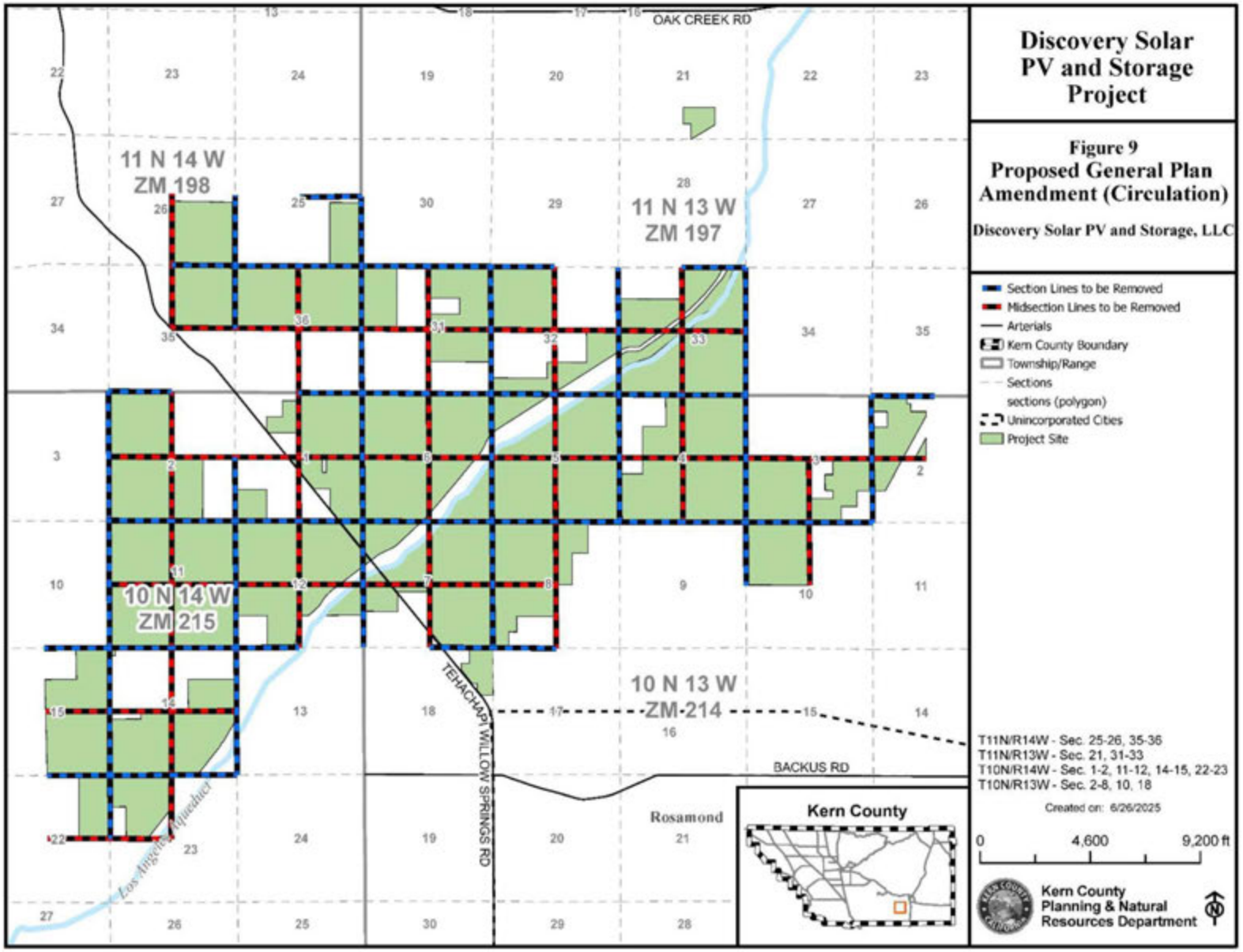

Discovery Solar PV and Storage Project
Figure 4
Proposed Project CUP & ZCC Boundaries
Discovery Solar PV and Storage, LLC
11 N 14 W ZM 198
11 N 13 W ZM 197
10 N 14 W ZM 215
10 N 13 W ZM 214
OAK CREEK RD
BACKUS RD
TEHACHAPI WILLOW SPRINGS RD
Rosamond
Kern County
CUP Boundaries
CUP 22, Map 197
CUP 47, Map 198
CUP 50, Map 214
CUP 51, Map 214
CUP 19, Map 215
ZCC Boundaries
ZCC 16, Map 215
ZCC 29, Map 214
ZCC 56, Map 197
ZCC 71, Map 198
Arterials
Kern County Boundary
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 17-18
Created on: 7/21/2025
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4,600
9,200 ft
Kern County Planning & Natural Resources Department

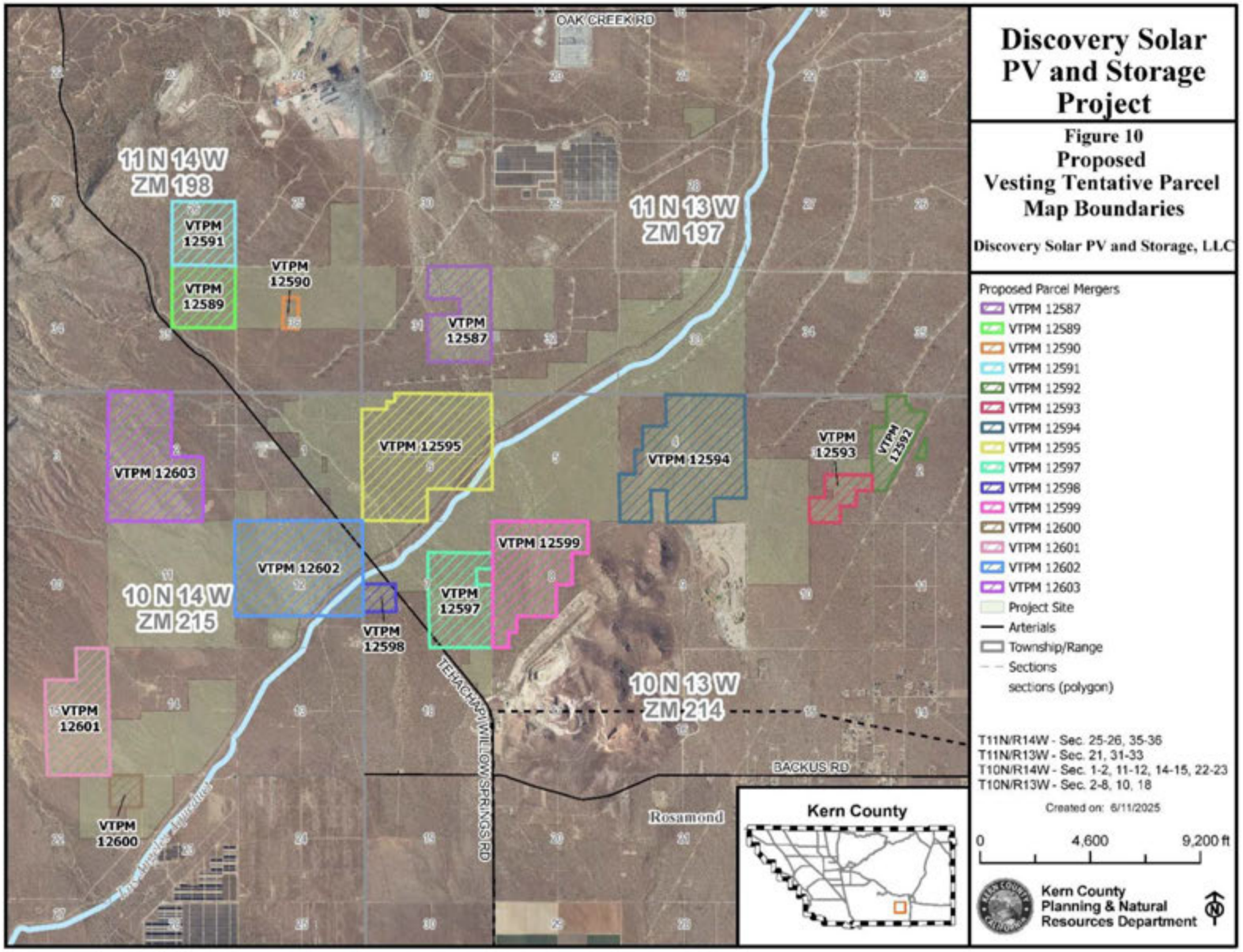

Discovery Solar PV and Storage Project
Figure 5
Floodplain Map
Discovery Solar PV and Storage, LLC
Project Site
Arterials
A - No Base Flood Elevations Determined
X - Areas determined to be outside the 0.2% annual chance floodplain
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 5/12/2025
0 3,000 6,000 Feet
Kern County Planning & Natural Resources Department
Kern County
TEHACHAPI WILLOW SPRINGS RD
BACKUS RD

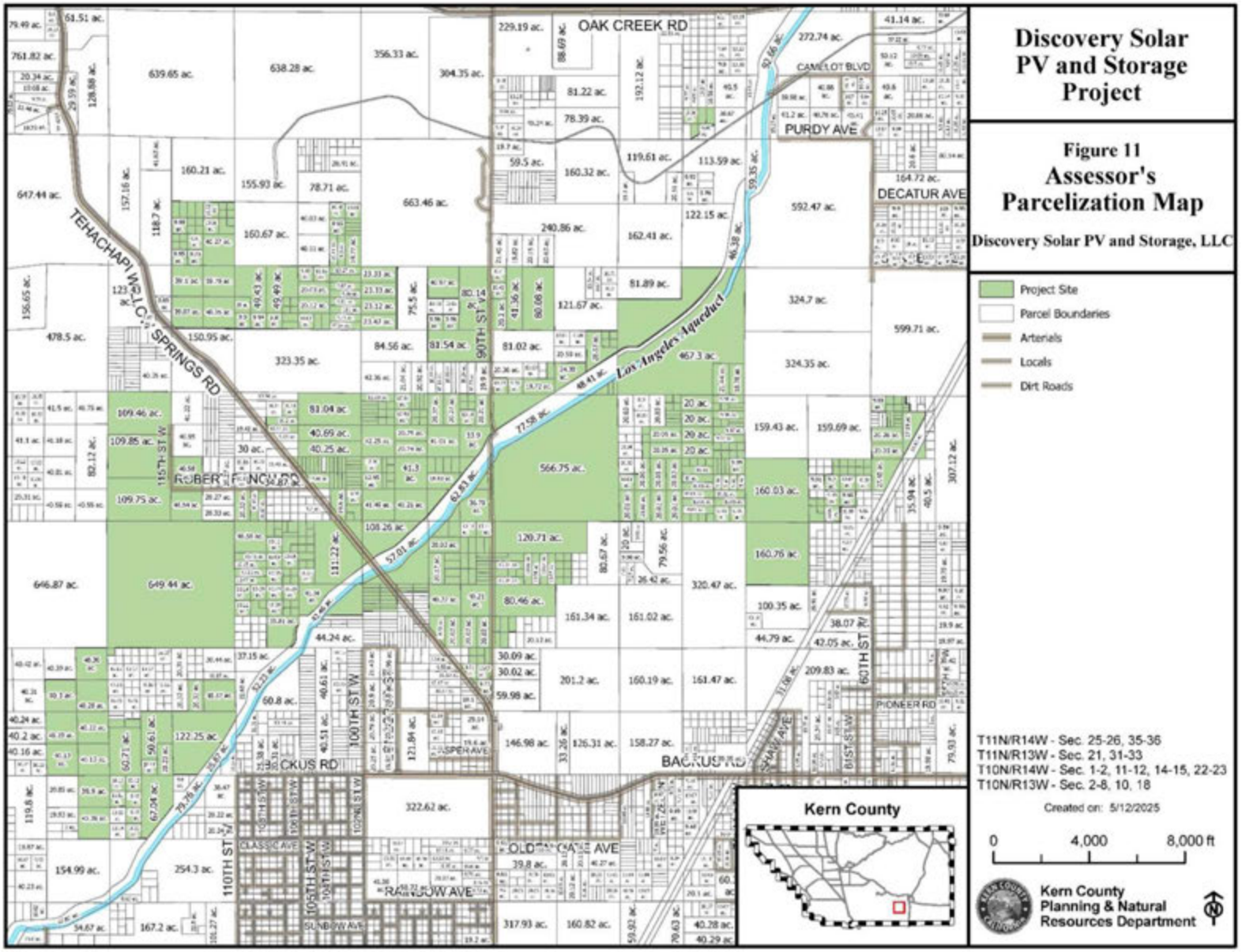

Discovery Solar PV and Storage Project
Figure 6
Existing General Plan Map
Discovery Solar PV and Storage, LLC
Kern County General Plan
OAK CREEK RD
CAMELOT BLVD
PURDY AVE
SUNSET AVE
Low Den. Res.
Soledad Mtn. - Elephant Butte SP
Ancient Valley SP
ROBERT RANCH RD
BACKUS RD
CASPER AVE
ALICE AVE
GOLDEN GATE AVE
RAINBOW AVE
SUNBOW AVE
CLASSIC AVE
WETZEL LN
SHAW AVE
TEHACHAPI WILLOW SPRINGS RD
Los Angeles Aqueduct
115TH ST W
100TH ST W
105TH ST W
106TH ST W
102ND ST W
110TH ST W
90TH ST W
60TH ST W
50TH ST W
LONGSPUR ST
Project Site
Arterials
Dirt Roads
Specific Plans
Ancient Valley
Soledad Mtn. - Elephant Butte
General Plan Boundaries
1.1 - State and Federal Land
4.1 - Accepted County Plan Areas
4.3 - Specific Plan Required
7.3 - Heavy Industrial
8.1 - Intensive Agriculture (Min. 20-acre parcel size)
8.2 - Resource Reserve (Min. 20- or 80-acre parcel size)
8.3 - Extensive Agriculture (Min. 20- or 80-acre parcel size)
8.4 - Mineral and Petroleum (Min. 5-acre parcel size)
8.5 - Resource Management (Min. 20- or 80-acre parcel size)
4.3 - SPECIFIC PLAN REQUIRED
Greenbelt
Low Density Residential
2.5 - Flood Hazard
2.4 - Steep Slope
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 5/12/2025
0
4,000
8,000 ft
Kern County
Kern County Planning & Natural Resources Department

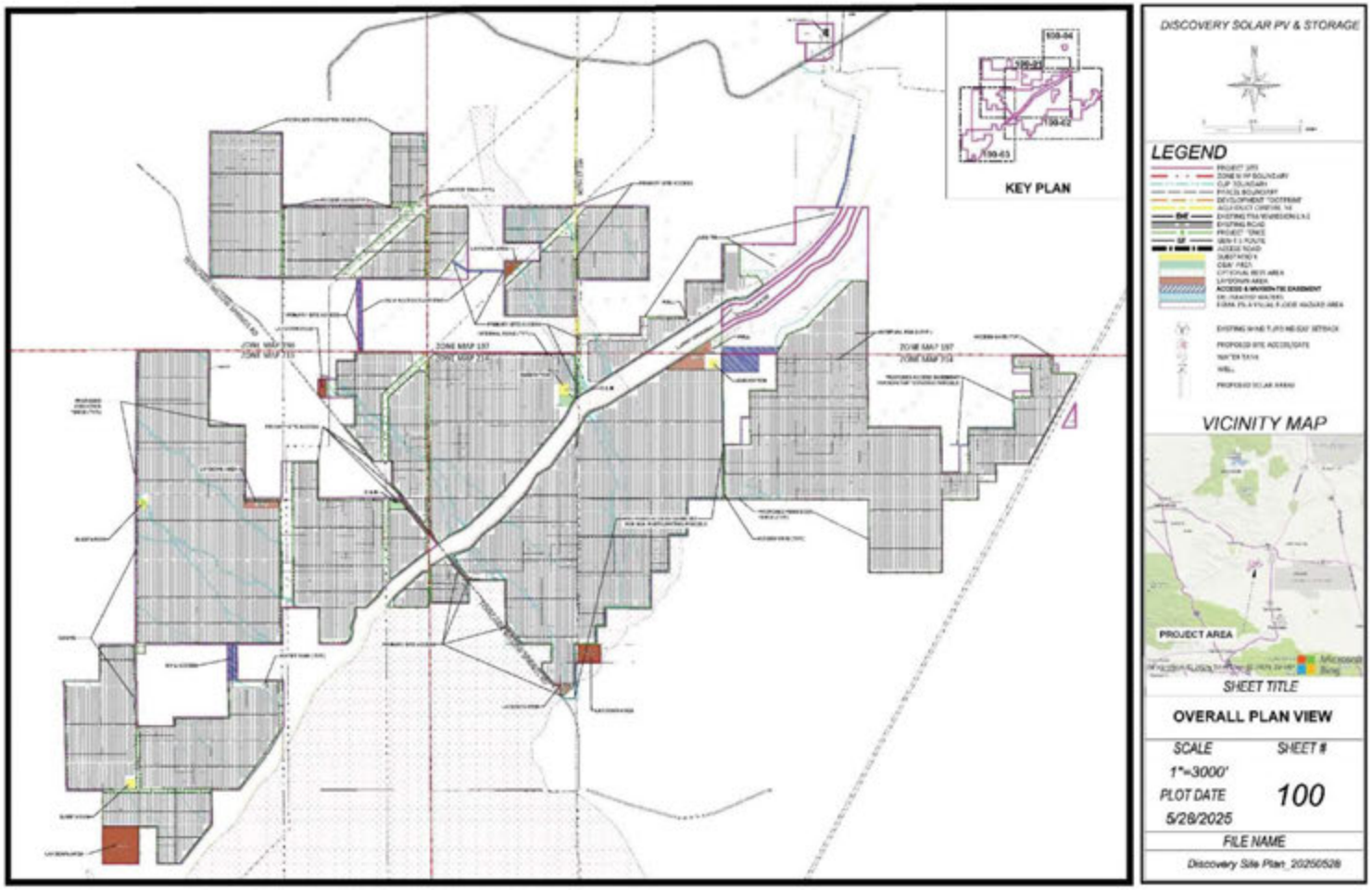

Discovery Solar PV and Storage Project
Figure 7
Existing Zone Classifications
Discovery Solar PV and Storage, LLC
ZCC Boundary
Project Site
Arterials
Locals
KERN COUNTY ZONING DESIGNATIONS
A - Exclusive Agriculture
A-1 - Limited Agriculture
E(1) - Estate (1 acre)
E(10) - Estate (10 acres)
E(2 1/2) - Estate (2.5 acres)
E(20) - Estate (20 acres)
M-3 - Heavy Industrial
OS - Open Space
PL - Platted Lands
FP - Floodplain Combining
FPS - Floodplain Secondary Combining
MH - Mobilehome Combining
PD - Precise Development Combining
RS - Residential Suburban Combining
WE - Wind Energy Combining
FP - Floodplain Combining
FPS - Floodplain Secondary Combining
MH - Mobilehome Combining
WE - Wind Energy Combining
FP - Floodplain Combining
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 6/5/2025
0
4,000
8,000 ft
Kern County
Planning & Natural Resources Department
Kern County
BACKUS RD
TEHACHAPI WILLOW SPRINGS RD
E(20) RS
E(2 1/2) RS
E(2 1/2) RS MH
A-1 MH
PL RS
A FPS
A FP
OS
PL


Discovery Solar PV and Storage Project
Figure 8
Proposed Zone Classifications
Discovery Solar PV and Storage, LLC
ZCC Boundary
Project Site
KERN COUNTY ZONING DESIGNATIONS
A - Exclusive Agriculture
A-1 - Limited Agriculture
E(1) - Estate (1 acre)
E(10) - Estate (10 acres)
E(2 1/2) - Estate (2.5 acres)
E(20) - Estate (20 acres)
FPP - Floodplain Primary
M-3 - Heavy Industrial
OS - Open Space
PL - Platted Lands
FP - Floodplain Combining
FPS - Floodplain Secondary Combining
MH - Mobilehome Combining
PD - Precise Development Combining
RS - Residential Suburban Combining
WE - Wind Energy Combining
FP - Floodplain Combining
FPS - Floodplain Secondary Combining
MH - Mobilehome Combining
WE - Wind Energy Combining
FP - Floodplain Combining
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 6/5/2025
0
4,000
8,000 ft
Kern County
Planning & Natural Resources Department
Kern County
OAK CREEK RD
ROBERT RANCH RD
BACKUS RD
GOLDEN GATE AVE
RAINBOW AVE
PURDY AVE
DECATUR AVE
SUNSET AVE
PIONEER RD
ALICE AVE
CASPER AVE
LONGSPUR ST
SUNBOW AVE
60TH ST W
90TH ST W
105TH ST W
110TH ST W
115TH ST W
TEHACHAPI-WILLOW SPRINGS RD
Los Angeles Aqueduct
CAMELOT BLVD
E(20) RS
E(2 1/2) RS
E(2 1/2) RS MH
A-1 MH
OS
PL RS
A FP
A FPS

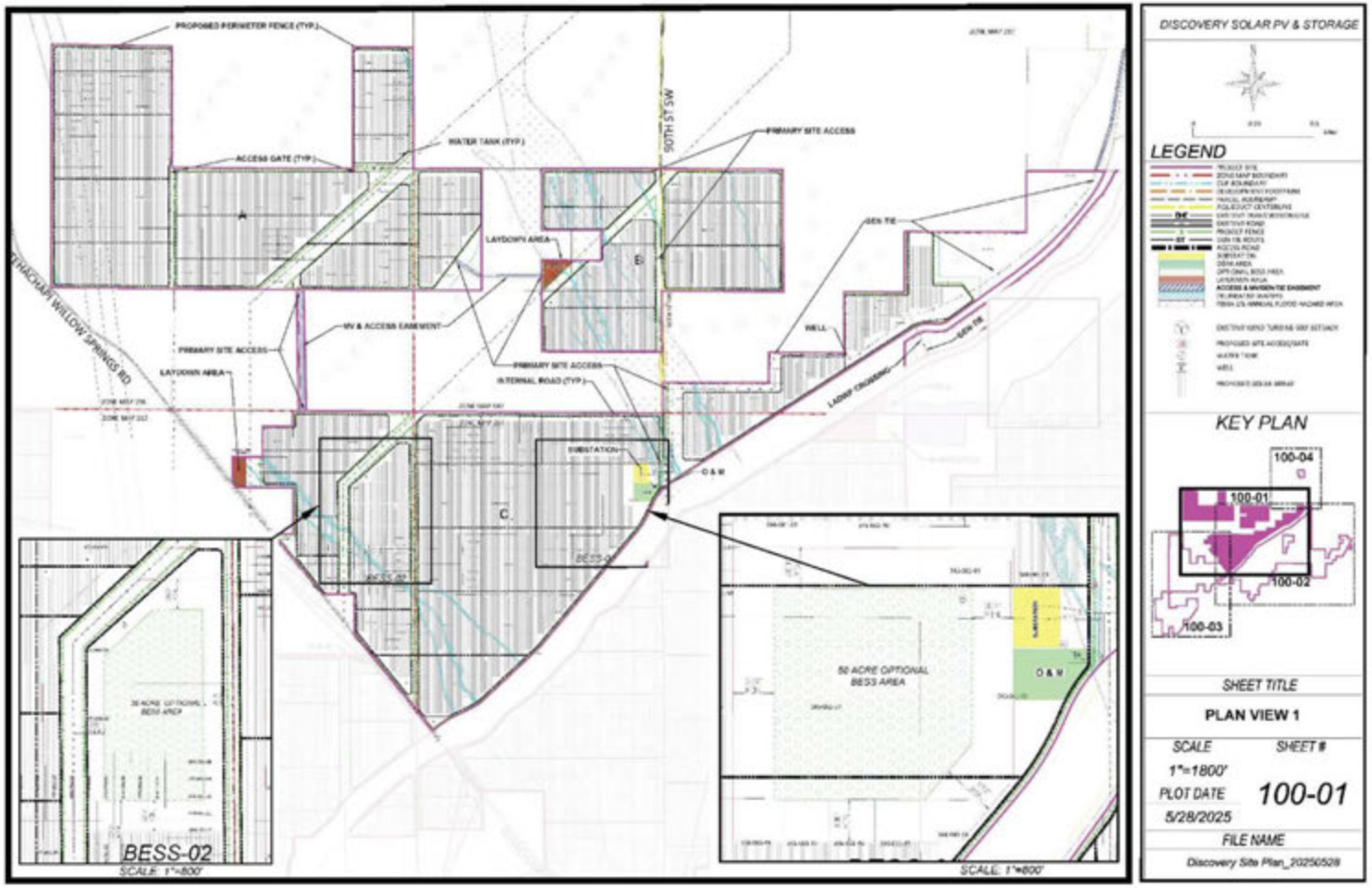

Discovery Solar PV and Storage Project
Figure 9
Proposed General Plan Amendment (Circulation)
Discovery Solar PV and Storage, LLC
11 N 14 W ZM 198
11 N 13 W ZM 197
10 N 14 W ZM 215
10 N 13 W ZM-214
OAK CREEK RD
BACKUS RD
TEHACHAPI WILLOW SPRINGS RD
Los Angeles Aqueduct
Rosamond
Section Lines to be Removed
Midsection Lines to be Removed
Arterials
Kern County Boundary
Township/Range
Sections
sections (polygon)
Unincorporated Cities
Project Site
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 6/26/2025
0
4,600
9,200 ft
Kern County
Kern County Planning & Natural Resources Department


OAK CREEK RD
11 N 14 W
ZM 198
11 N 13 W
ZM 197
VTPM 12591
VTPM 12589
VTPM 12590
VTPM 12587
VTPM 12595
VTPM 12603
VTPM 12594
VTPM 12593
VTPM 12592
VTPM 12599
VTPM 12602
VTPM 12597
10 N 14 W
ZM 215
VTPM 12598
10 N 13 W
ZM 214
VTPM 12601
TEHACHAPI WILLOW SPRINGS RD
BACKUS RD
Rosamond
VTPM 12600
Kern County
Discovery Solar PV and Storage Project
Figure 10
Proposed
Vesting Tentative Parcel Map Boundaries
Discovery Solar PV and Storage, LLC
Proposed Parcel Mergers
VTPM 12587
VTPM 12589
VTPM 12590
VTPM 12591
VTPM 12592
VTPM 12593
VTPM 12594
VTPM 12595
VTPM 12597
VTPM 12598
VTPM 12599
VTPM 12600
VTPM 12601
VTPM 12602
VTPM 12603
Project Site
Arterials
Township/Range
Sections
sections (polygon)
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 6/11/2025
0
4,600
9,200 ft
Kern County
Planning & Natural
Resources Department


Discovery Solar PV and Storage Project
Figure 11
Assessor's Parcelization Map
Discovery Solar PV and Storage, LLC
Project Site
Parcel Boundaries
Arterials
Locals
Dirt Roads
T11N/R14W - Sec. 25-26, 35-36
T11N/R13W - Sec. 21, 31-33
T10N/R14W - Sec. 1-2, 11-12, 14-15, 22-23
T10N/R13W - Sec. 2-8, 10, 18
Created on: 5/12/2025
0
4,000
8,000 ft
Kern County
Planning & Natural Resources Department
Kern County
OAK CREEK RD
CAMELOT BLVD
PURDY AVE
DECATUR AVE
TEHACHAPI WILLOW SPRINGS RD
Los Angeles Aqueduct
ROBERTSON RD
PIONEER RD
BACKUS RD
CKUS RD
OLD TEHACHAPI AVE
RANDSOW AVE
SUNDOWN AVE
JASPER AVE
CLASSIC AVE
90TH ST W
100TH ST W
105TH ST W
110TH ST W
115TH ST W
60TH ST W
61ST ST W



Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 12 **Proposed Site Plan - Overall**	Kern County Planning & Natural Resources Department 5/30/25



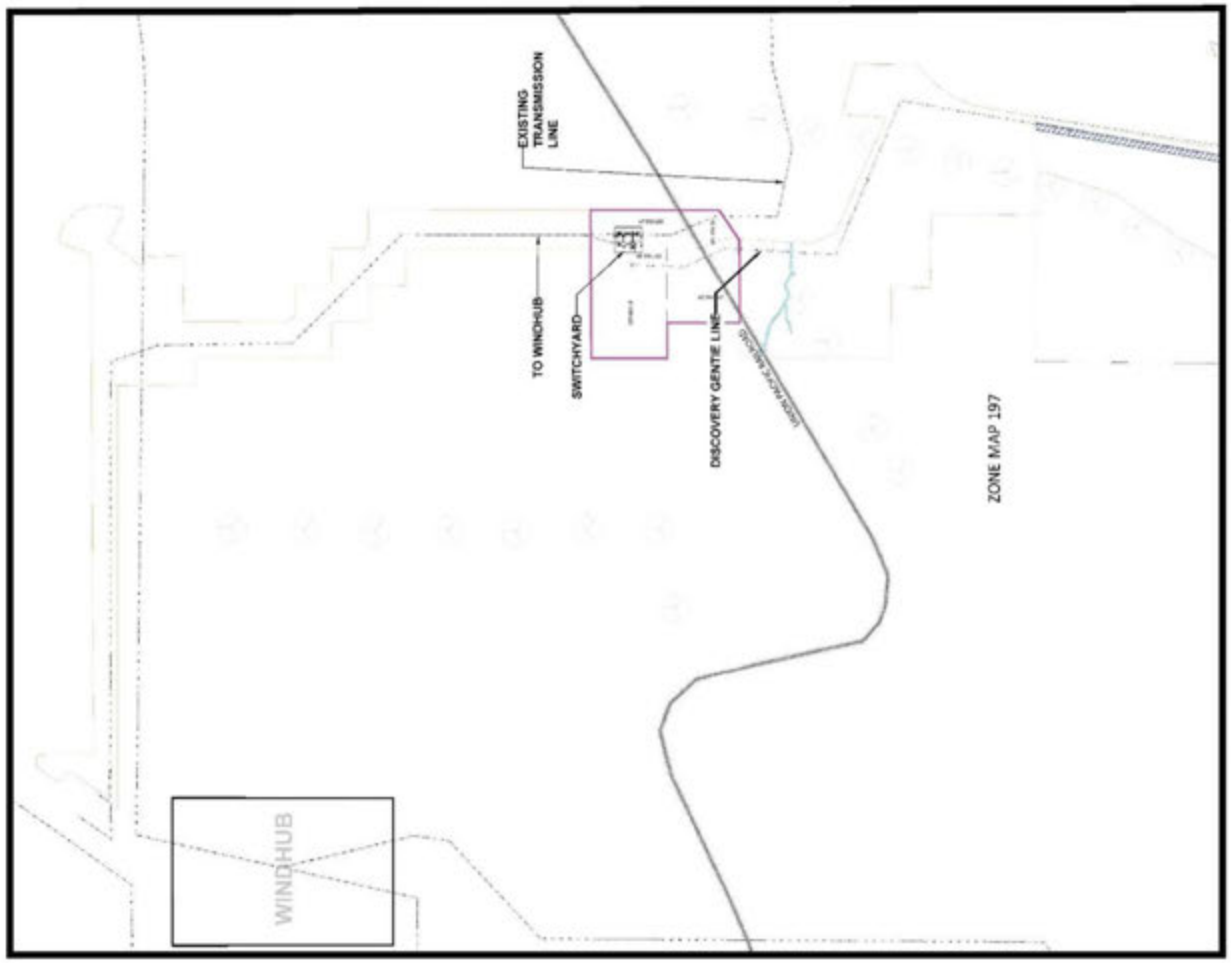
Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 12 **Proposed Site Plan - View 1**	Kern County Planning & Natural Resources Department 5/30/25

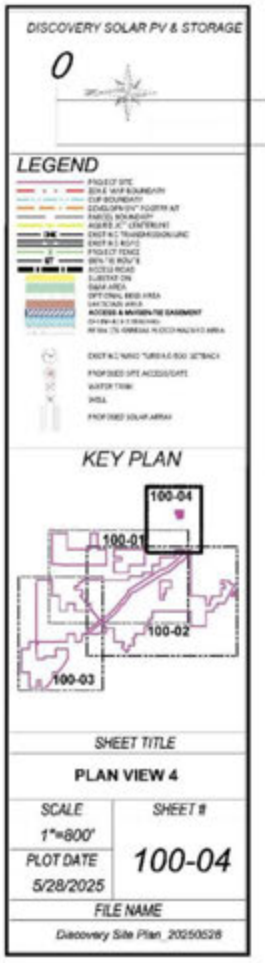


Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 12 **Proposed Site Plan - View 2**	Kern County Planning & Natural Resources Department 5/30/25

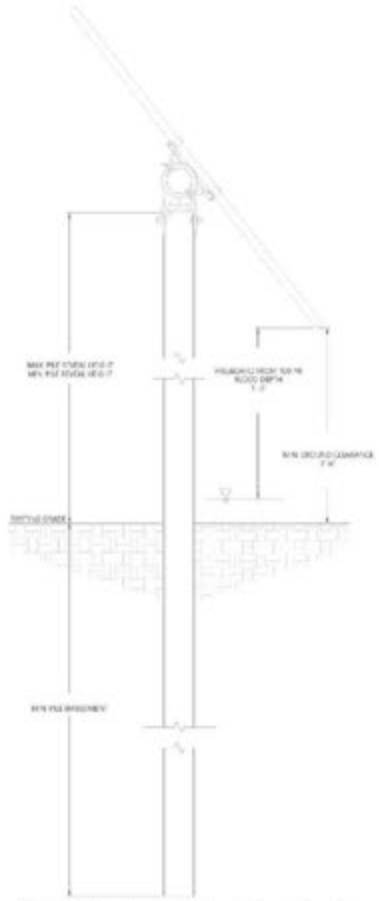


Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 12 **Proposed Site Plan - View 3**	Kern County Planning & Natural Resources Department 5/30/25



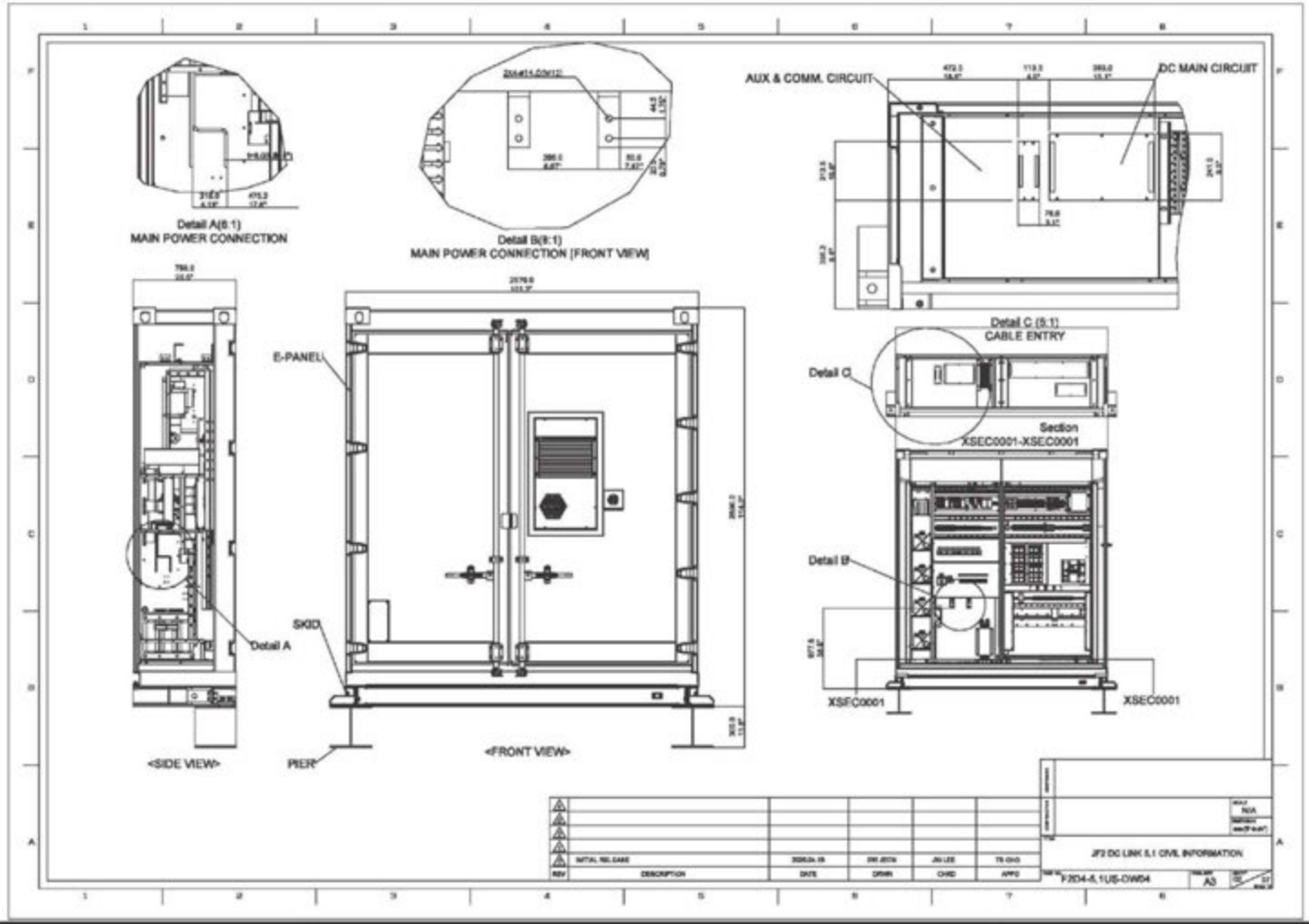


Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 12 **Proposed Site Plan - View 4**	Kern County Planning & Natural Resources Department 5/30/25



1 PV Pile Foundation Cross Section
Driven Pile (N.T.S)

Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 13 **Solar Panel - Elevations (conceptual)**	Kern County Planning & Natural Resources Department 5/30/25



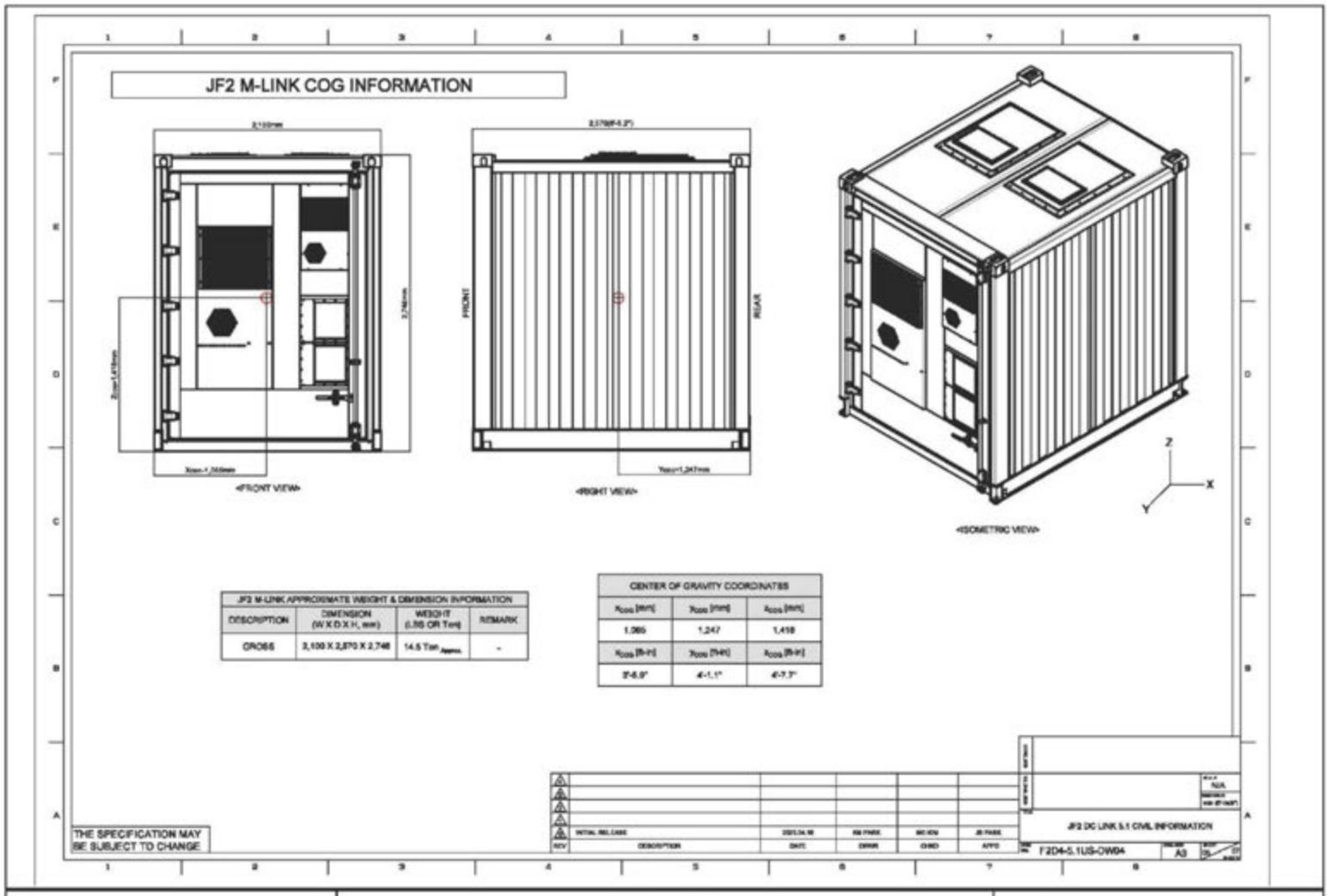
Discovery Solar PV and Storage Project
by
Discovery Solar PV and Storage, LLC

Figure 14

Battery Energy Storage System - View 1

Kern County
Planning & Natural
Resources Department

5/30/25



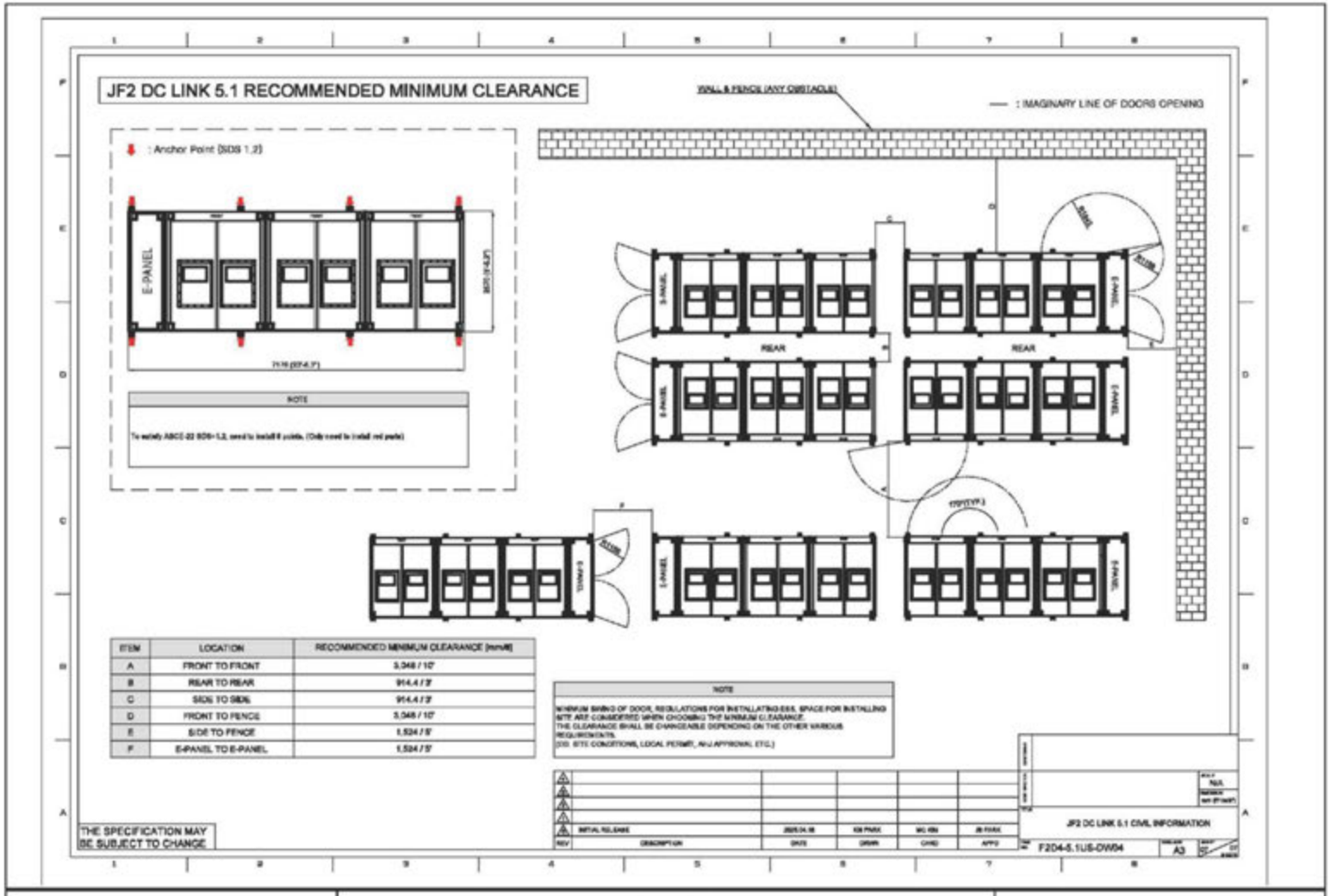
Discovery Solar PV and Storage Project
by
Discovery Solar PV and Storage, LLC

Figure 14

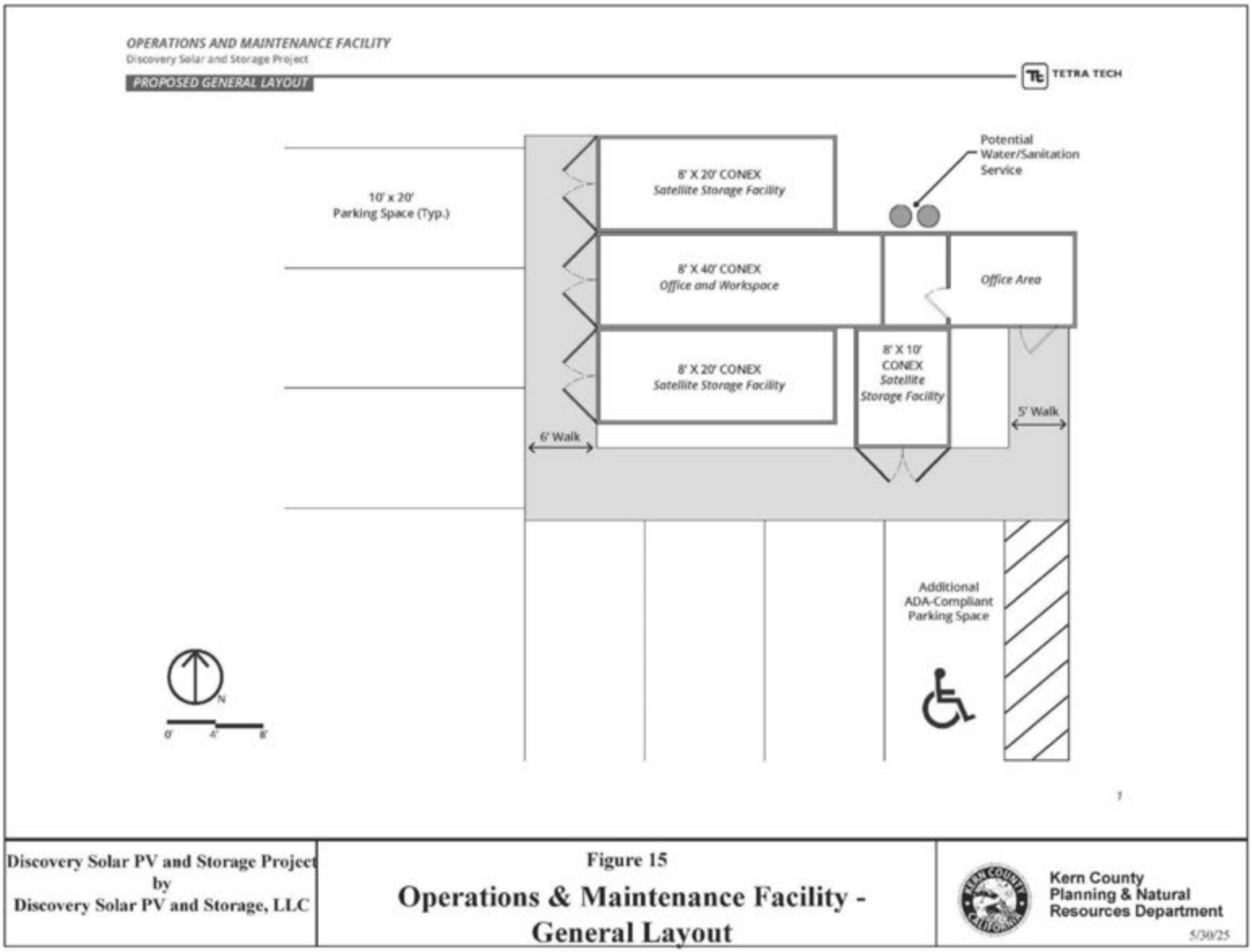
Battery Energy Storage System - View 2

Kern County
Planning & Natural
Resources Department

5/30/25



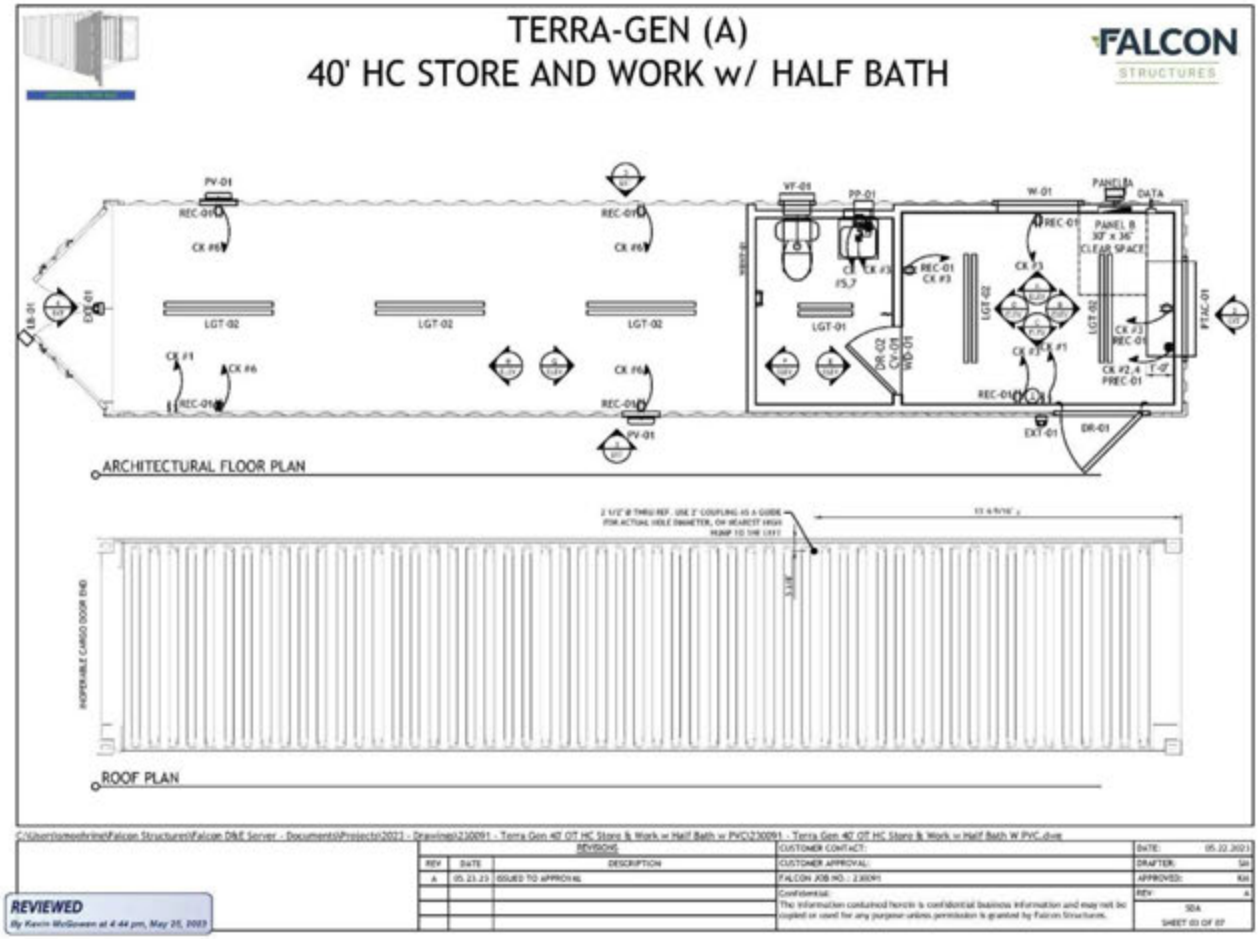
Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 14 **Battery Energy Storage System - View 3**	Kern County Planning & Natural Resources Department 5/30/25



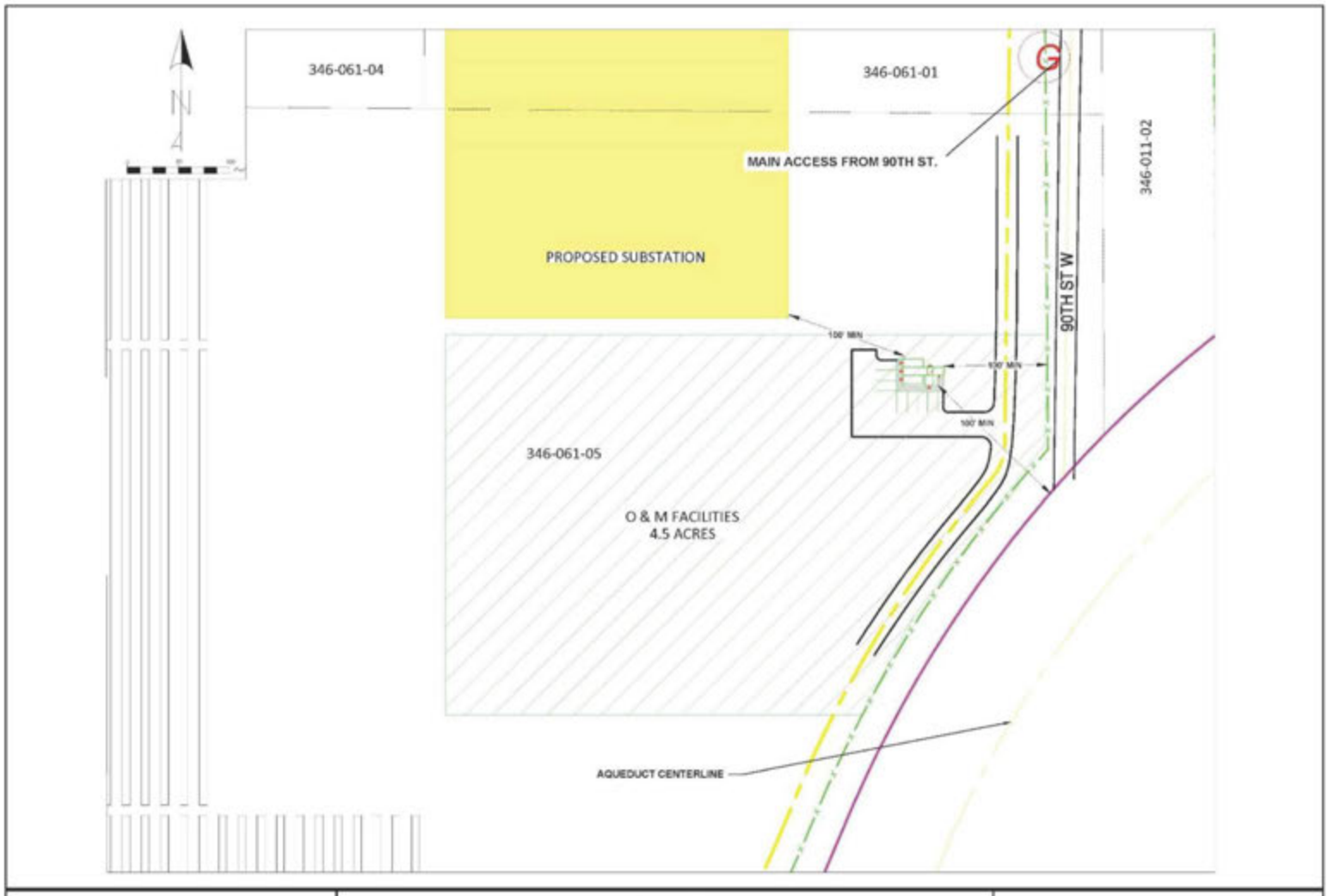
Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 15 **Operations & Maintenance Facility - General Layout**	Kern County Planning & Natural Resources Department 5/30/25



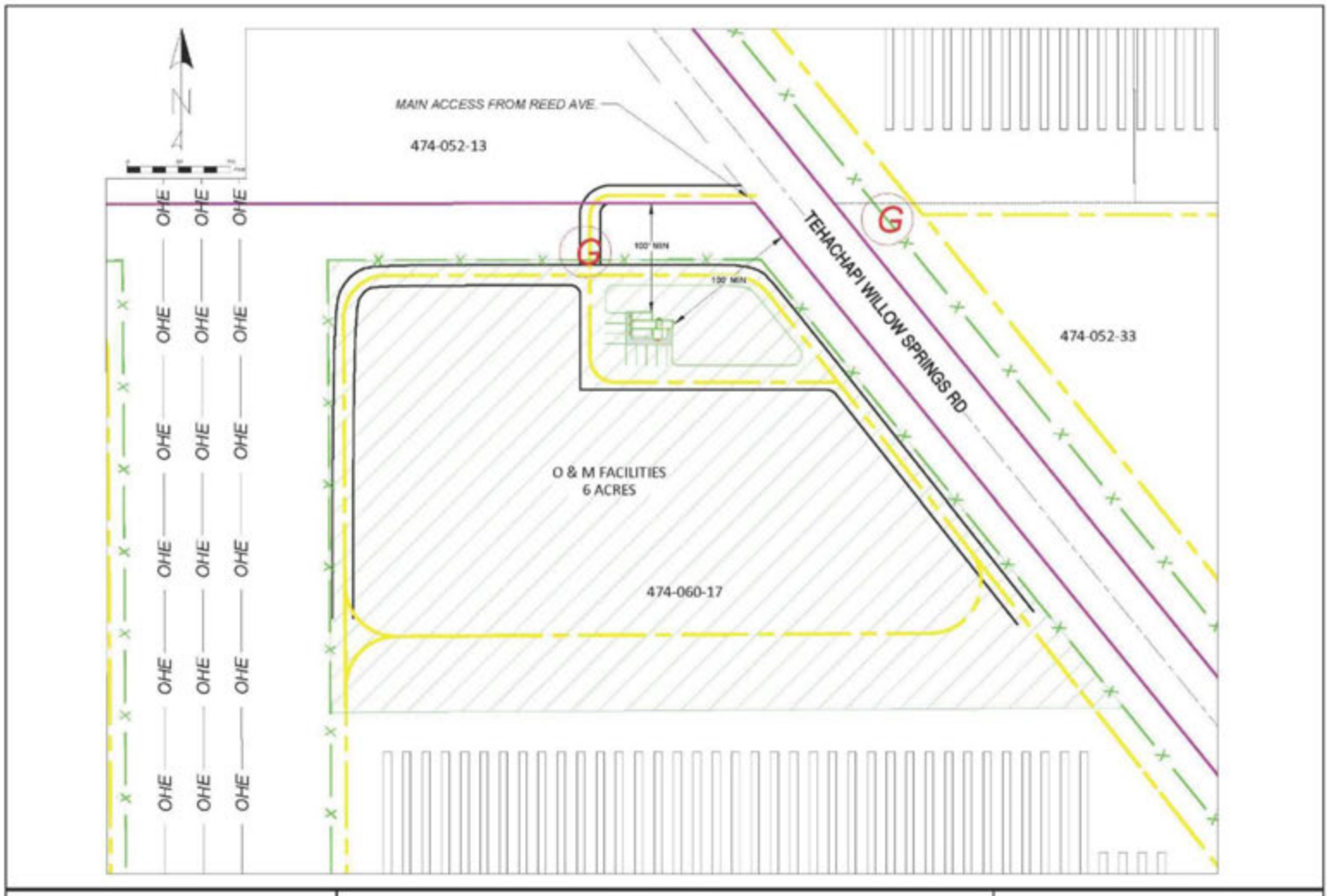
Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 15 **Operations & Maintenance Facility - Exterior Elevations**	Kern County Planning & Natural Resources Department 5/30/25



Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 15 **Operations & Maintenance Facility - Floorplan**	Kern County Planning & Natural Resources Department 5/30/25



Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 15 **Proposed Site Plan - O&M Facility A**	Kern County Planning & Natural Resources Department 5/30/25



Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC	Figure 15 **Proposed Site Plan - O&M Facility B**	Kern County Planning & Natural Resources Department 5/30/25

2. Kern County Environmental Checklist Form

2.1 Environmental Factors Potentially Affected

In accordance with CEQA Guidelines, the County intends to prepare an Environmental Impact Report (EIR) to evaluate potential environmental effects of the project and to propose mitigation measures to reduce any significant effects identified.

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "potentially significant impact" as indicated by the Kern County Environmental Checklist. As such, the analysis contained within the EIR will focus on these issue areas.

☒ Aesthetics	☒ Agricultural and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Energy
☒ Geology and Soils	☒ Greenhouse Gas Emissions	☒ Hazards and Hazardous Materials
☒ Hydrology and Water Quality	☒ Land Use and Planning	☒ Mineral Resources
☒ Noise	☐ Population and Housing	☒ Public Services
☐ Recreation	☒ Transportation and Traffic	☒ Tribal Cultural Resources
☒ Utilities/Service Systems	☒ Wildfire	☒ Mandatory Findings of Significance

Other Environmental Issues

Kern County conducted a preliminary review of the proposed Project and has determined it is not likely to result in significant environmental effects to the following resources. Therefore, further analysis is not warranted in the EIR.

- **Population / Housing:** The proposed project will not induce substantial unplanned population growth through the construction of new homes, roads, or other infrastructure nor displace housing units or people.

Although the proposed project would provide new employment consistent with the adopted Kern County General Plan goals, plan, and policies, long-term employment opportunities would be minimal. The proposed project would require an operational/maintenance staff of up to six full-time employees.

It is estimated that up to 660 full-time employees per day would be required during peak construction periods for the proposed project. The entire construction process is anticipated to take 34 months. Therefore, the majority of project-generated jobs would be from the local and regional area and would occur on a temporary and short-term basis. Construction workers are expected to travel to the project site from various local communities and locations throughout Southern California, and few, if any workers expected to relocate to the surrounding area because of these temporary jobs. If temporary housing should be necessary, it is expected that accommodations (i.e., extended stay hotels, apartments, recreational vehicle parks, homes for rent or sale) would be available in the nearby communities of California City, Mojave, and Rosamond. Therefore, the proposed project is not anticipated to directly or indirectly induce the development of any new housing or businesses within the local communities.

The proposed project is located on private land owned or leased by the project proponent and no residents would be displaced as part of the project. There are multiple residence locations within the project boundary that have been purchased by the project proponent and would be demolished in accordance with Kern County

permitting. The proposed project is not anticipated to displace existing housing that would necessitate the construction of replacement housing elsewhere.

- **Recreation:** The Kern County General Plan does not identify any existing or proposed recreational facilities near the project site. The project would not increase the use of recreational facilities or require the construction or expansion of recreational facilities.

The proposed project itself does not include new recreational facilities and is not anticipated to increase demands on existing facilities. The number of workers needed during the construction phase would largely depend on the specific stage of construction and peak at 660 workers. These workers are not likely to visit local parks or recreation facilities during the workday and the workers that are relocating temporarily during construction would create little or no impact on local recreational resources after work hours.

Operation of the proposed project would require up to six full-time employees for maintenance and monitoring activities, but they would likely be drawn from the local labor force and would commute from their existing permanent residence to the project site. However, even if the maintenance/monitoring employees were hired from out of the area and relocated to eastern Kern County, the addition of any such families to the project area would not result in a substantial increase in the number of users at local parks or recreational facilities. As a result, there would not be a detectable increase in the use of existing neighborhood or regional parks or other recreational facilities, and therefore, no deterioration of any such facilities would occur or require the construction of new facilities as a result of project implementation.

2.2 Determination

(To be completed by the Lead Agency) Based on this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENT IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature:	Date:
	7/31/2025
Printed Name:	Title:
Mark Tolentino	Planner III

AGENDA

KERN COUNTY PLANNING & NATURAL RESOURCES DEPARTMENT

Scoping Meeting

Kern County Public Services Building
2700 "M" Street, Public Meeting Room 1-A
Bakersfield, California 93301

Thursday, August 21, 2025 – 1:30 p.m.

Pursuant to revised Section 21083.9 of the Public Resources Code, California Environmental Quality Act, effective January 1, 2002, this scoping meeting is being held to receive agency comments on the preparation of the Environmental Impact Reports (EIR) on certain projects. The process of determining the scope, focus, and content of the EIR is known as "scoping." Scoping helps to identify the range of actions, alternatives, environmental effects, methods of assessment, and mitigation measures to be analyzed in depth, and eliminate issues from the detailed study that are not important to the decision at hand. This is not a public hearing; however, the public may be present and offer comments. If you attend as a member of the public to address an item on the agenda, please let the chairperson know when discussion begins on that item. Each project will be presented by staff followed by an opportunity for comments for the record.

A. INTRODUCTION: Staff and meeting format

B. NEW CASES:

EIR – Notice of Preparation
Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC (Terra-Gen) (PP24408)
Case numbers: ZCC No. 56, Map 197; ZCC No. 71, Map 198; ZCC No. 29, Map 214; ZCC No. 16, Map 215; CUP No. 22 Map 197; CUP No. 47, Map 198; CUP No. 50, Map 214; CUP No. 51, Map 214; CUP No. 19, Map 215; ZV No. 20, Map 197; ZV No. 36, Map 198; ZV No. 15, Map 214; ZV No. 3, Map 215; GPA No. 18, Map 197 (Circulation); GPA No. 5, Map 198 (Circulation); GPA No. 10, Map 214 (Circulation); GPA No. 7, Map 215 (Circulation); Multiple Vesting Tentative Parcel Maps (VTPM).

C. ADJOURNMENT: Staff closing remarks

AMERICANS WITH DISABILITIES ACT
(Government Code Section 54953.2)

Disabled individuals who need special assistance to attend or participate in the scoping meeting may request assistance at the Kern County Planning Department or by calling Alyssa Torres at (661) 862-8615. Every effort will be made to reasonably accommodate individuals with disabilities by making meeting materials available in alternative formats. Requests for assistance should be made five (5) working days in advance whenever possible.

Posted: August 15, 2025
MT

SUBMIT WRITTEN COMMENTS ON THE NOP BY TUESDAY, SEPTEMBER 2, 2025 AT 5:00 PM

Mail to:
Kern County Planning and Natural Resources Department
Attn: Mark Tolentino, Planner III
2700 "M" Street, Suite 100
Bakersfield, CA 93301
Phone: (661) 862-5041, **Email:** TolentinoM@kerncounty.com

Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC. (Terra-Gen)
August 21, 2025 - Scoping Meeting Sign-In Sheet

Name	Agency/Organization/Surrounding Property Owner	Contact Number	Address (Only if interested to be on mailing list)
VICTOR NAVAS	PROP OWNER	(818) 521-5217	11437 OKNARD st #1
Ching Yi Wan	Prop Owner	(408) 621-9215	1650 Archer St. PO Box 93 Aviso, CA 95002
~~Ken Yang~~	~~Prop Owner~~	~~(408) 621~~	chingyiwan@yahoo.com
Jennifer Merrick	Tetra Tech	619-721-5555	
Taylor Schoene	Terra-Gen	661-747-1940	
Carlos & Angela Quirione	Prop owner	562 688 6158	1187 Huckleberry Ln. San Jacinto

NOTE: Your name, address, and phone number become public information once you sign-in. However, signing in is voluntary. Under the Brown Act, "all person may attend a meeting regardless of whether a person signs".

SUMMARY OF PROCEEDINGS

KERN COUNTY AGENCY SCOPING MEETING

Kern County Planning and Natural Resources Department
2700 M Street, Suite 100
Bakersfield, California

Conference Room 1A

Date August 21, 2025 1:30 PM

STAFF ATTENDANCE:
Mark Tolentino, Planner III
Nicole Menchaca, Supervising Planner

The meeting convened at 1:33 p.m. with the following individuals in attendance: Staff, two (2) representatives from the Discovery Solar PV and Storage Project, and nine (9) members of the public affiliated with three (3) surrounding properties. Items were then discussed in order as identified on the agenda.

NOTICE OF PREPARATION PROJECT:

Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC (Terra-Gen) (PP24408)

Case numbers: ZCC No. 56, Map 197; ZCC No. 71, Map 198; ZCC No. 29, Map 214; ZCC No. 16, Map 215; CUP No. 22 Map 197; CUP No. 47, Map 198; CUP No. 50, Map 214; CUP No. 51, Map 214; CUP No. 19, Map 215; ZV No. 20, Map 197; ZV No. 36, Map 198; ZV No. 15, Map 214; ZV No. 3, Map 215; GPA No. 18, Map 197 (Circulation); GPA No. 5, Map 198 (Circulation); GPA No. 10, Map 214 (Circulation); GPA No. 7, Map 215 (Circulation); Multiple Vesting Tentative Parcel Maps (VTPM).

Of the nine (9) total members of the public in attendance, three (3) individuals spoke before Staff, raising common concerns regarding affected property values and land access that could result from development of the proposed project.

Mr. Ken Wan, representing APN 345-011-44, stated he had received many offers for the purchase of his land, also sharing concerns that the proposal would hurt property value and decrease land value. Mr. Wan also referred to the General Plan Amendment (Figure 9) in the NOP, raising concerns with potential road closures that could result from the elimination of road reservation as part of the Plan Amendment the Circulation Element of the Kern County General Plan.

Both Mr. Victor Navas, representing APN 474-052-21, and Mr. Carlos Quinonez, representing APN 346-072-02 stated their concerns related to property values and access were similar to those raised in Mr. Wan's statement.

Staff acknowledged the concerns raised by the commenters and collected their contact information to ensure they continue to receive future notices and public documentation related to the project.

Public testimony closed at approximately 1:48 p.m.

Notes prepared by
Mark Tolentino, Planner III

Mark Tolentino

From: H E <mbtu@earthlink.net>
Sent: Monday, August 4, 2025 7:43 PM
To: Mark Tolentino
Subject: Impacted by Discovery Solar

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.

Dear Mr. Mark Tolentino,

I like to bring your attention to the negative impact Discovery Solar Project will have on our 2.5 Acre lot and adjacent lots. We thank you for asking. Yes we have environmental concerns.

1. Our lot (APN 474-171-27-00) is located in the northern half of section 14 of map 215. You can clearly see that this 1/4 square mile will be almost totally surrounded by Solar infrastructure.
2. The solar project will obstruct view from and to any future home we plan to build, raising security concerns, and the quick arrival of emergency vehicles.
3. The price of these lands will be negatively impacted being residential lots in the middle of a huge solar farm.
4. Access to the lots will be restricted if you plan to vacate existing section and intermediate section roads.
5. We have concerns about electromagnetic interferences, and white noise.

We therefore ask that the planning department kindly give every consideration to alleviate our loss, which may include the following.
1. Include our lots in the project guaranteeing that we receive the fair and appropriate royalties from energy generation.
OR 2. Limit road vacations and allow access to our lots from multiple directions.
3. Mandate that the project developers install consumer-level power lines to serve this impacted section of the project.
4. Provide for paved roads to allow the efficient access of county police, fire, and medical service vehicle.

I hate to spoil the party, but I think that our concerns are valid and paramount.
Please tell us what you plan on doing.

Thank you respectfully,

Hisham Elkhatib
mbtu@earthlink.net
951-316-4484
Re : 474-171-27-00

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

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

August 6, 2025

Kern County Planning and Natural Resources Department
2800 M St., Bakersfield, CA 93301
Attn.: Mark Tolentino, Planner III

Re: Kern County Fire Department Comments Regarding Planning Department Project

To Whom It May Concern,

The Kern County Fire Department (KCFD), as the local fire authority, has received a request for comments regarding NOP of a Draft EIR for a PV and ESS project in Eastern Kern County. Upon initial review, it has been determined that all ground mounted solar array projects over 1MW will require Fire Department plan review prior to construction and meet requirements set forth in KCFD Solar Panel Standard. Solar array projects over 20MW will require special fee calculation from KCFD prior to permit issuance.

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

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

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

Respectfully,
Matt Redstone
Assistant Fire Marshal
Kern County Fire Department

Mark Tolentino

From: Scott Cooley <scottmcooley@hotmail.com>
Sent: Wednesday, August 6, 2025 6:52 PM
To: Mark Tolentino
Subject: Comments on Discovery Solar PV

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.

Dear Sirs,

I took interest in this planned solar & BESS site. I am very much in favor of this development. It's the kind of green power we need to be building and the greater desert area is the perfect location. I own two parcels in the immediate vicinity and I received two letters in the mail. This project has my full support.

Scott M Cooley
15900 Kennedy Rd.
Los Gatos, CA 95032
Cell: 408-829-4130

Mark Tolentino

From: Joshua S. Sanchez <jssanchez@tachi-yokut-nsn.gov>
Sent: Wednesday, August 6, 2025 3:08 PM
To: Mark Tolentino
Cc: Cristina Gonzales
Subject: Regarding the Discovery SOLAR PV and Storage Project

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.

Hello,

Thank you for your letter dated July 31, 2025. This particular project is not in our Santa Rosa Rancheria area of interest, at this time we would like to defer to the local tribes in the area. If you have any questions please feel free to contact me.

Thank you,
Josh

Josh Sanchez, Cultural Resources Staff
Cultural department, Santa Rosa Rancheria
jssanchez@tachi-yokut-nsn.gov
Office (559) 925-2580

NATIVE AMERICAN HERITAGE COMMISSION

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ACTING EXECUTIVE SECRETARY
Michelle Carr

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov

August 8, 2025

Mark Tolentino
Kern County Planning and Natural Resource Department
2700 M Street
Suite 100
Bakersfield CA 93301

Re 2025071048 Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC (Terragen Solar) Project Kern County

Dear Mr. Tolentino:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements**. If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (https://ohp.parks.ca.gov/?page_id=30331) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.

b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:

a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.

b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.

a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.

b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.

c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Mathew.Lin@NAHC.ca.gov.

Sincerely,

Mathew Lin

Mathew Lin
Cultural Resources Analyst

cc: State Clearinghouse

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Eastern Kern
Air Pollution Control District

Gary Ray, Jr.
Air Pollution Control Officer

Mark Tolentino, Planner III
Kern County Planning and Natural Resources Department
2700 "M" Street Suite 100
Bakersfield, CA 93301

RECEIVED
AUG 12 2025
Kern County Planning & Natural Resources Dept.

SUBJECT: Comments for Notice of Preparation of a Draft Environmental Impact Report for Discovery Solar PV and Storage Project (PP 24408)

Dear Mr. Tolentino:

Eastern Kern Air Pollution Control District (District) is in receipt of the Notice of Preparation of a Draft Environmental Impact Report (DEIR) for the Discovery Solar PV and Storage Project.

Commercial solar power generation facilities 10 acres and larger are required to apply for an Authority to Construct and submit a Fugitive Dust Emission Control Plan to the District for approval prior to commencing construction of the facility. Additionally, the owner/operator is required to submit a Fugitive Dust Emission Monitoring Plan to the District for PM_{10} air monitoring required to be implemented for the operational life of the facility.

Stationary internal combustion engines (or portable engines that remain at one site for more than 12 consecutive months) rated greater than 50-bhp and gasoline storage of more than 250 gallons requires a Permit to Operate from the District.

If installation of the generation tie in line will require disturbing more than 10 contiguous acres of land, a Fugitive Dust Emission Control Plan must also be submitted to the District in accordance with District Rule 402 prior to commencing construction of the tie in line.

Thank you for your cooperation in this matter. Should you have any questions, please telephone Samuel Johnson our office at (661) 862-5250.

Sincerely,

Gary Ray, Jr.

Gary Ray, Jr.
Air Pollution Control Officer

GR: CB: VG

KCSOS
Kern County Superintendent of Schools
Office of John G. Mendiburu, Ed.D.— Advocates For Children

RECEIVED

AUG 19 2025

Kern County Planning & Natural Resources Dept.

August 12, 2025

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

Our File No.: CO25-0086

RE: DEVELOPER FEES FOR: Notice of Preparation of Draft EIR – Discovery Solar PV Project; Map No. 197-21, 31-33 / 198-25, 26, 35, 36 / 214-2-8, 10, 18 / 215-1, 2, 11, 12, 14, 15, 22, 23 (Approximately 6 miles southwest of Mojave, 9 miles southeast of Tehachapi, 8 miles northwest of Rosamond and 20 miles west of Edwards Airforce Base)

Dear Mr. Tolentino,

This office represents the Mojave Unified and Southern Kern Unified School Districts with regard to the imposition of school facility fees and appreciates the opportunity to respond on behalf of the districts 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.

It is our determination that the above-mentioned Notice of Preparation of a Draft Environmental Impact Report for the Discovery Solar PV and Storage Project proposing the development of a photovoltaic solar facility with associated infrastructure on an approximate 7,700-acre project site, across 473 privately owned parcels with multiple Zone Classification Changes, Zone Variances and a Conditional Use Permit will not have significant effects on either of these district's facilities

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.

Sincerely,

awatson

Andrea Watson, Specialist
School District Facility Services

Cc: Districts

Docusign Envelope ID: 48EF7A00-5A9A-4408-8236-AB933E3D1789

August 12, 2025

VIA ELECTRONIC MAIL

Kern County Planning and Natural Resources Department
Mark Tolentino
2700 M St. Suite 100
Bakersfield, CA 93301

tolentinom@kerncounty.com

Assessor Parcel Number(s): Multiple
Project Location Address: West edge of Antelope Valley

PROJECT TITLE: Discovery Solar PV and Storage

Public Resources Code (PRC) section 3208.1 establishes re-abandonment responsibility when previously plugged and abandoned oil, gas or geothermal wells will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near previously abandoned oil, gas, and geothermal wells.

The California Geologic Energy Management Division (CalGEM) has received the above-referenced project dated July 31, 2025. To assist local permitting agencies, property owners, and developers in making safe and practical land use decisions regarding potential development near oil, gas, or geothermal wells, CalGEM provides a table in the attached enclosure of the wells within the parcel boundary or in its vicinity, based on CalGEM's Well Finder database (https://maps.conservation.ca.gov/doggr/wellfinder/).

CalGEM categorically advises against building over, or in any way impeding access to, oil, gas, or geothermal wells. Impeding access to a well could result in the need to remove any structure or obstacle that prevents or impedes access including, but not limited to, buildings, housing, fencing, landscaping, trees, pools, patios, sidewalks, roadways, and decking at the landowner's expense if there is a need to access a well. Maintaining sufficient access is considered the ability for a well servicing unit and associated necessary equipment (consisting of well servicing rig, pumping equipment, pipe trailer) to reach a well from a public street or access way, solely over the parcel on which the well is located. A well servicing unit, and any necessary equipment, should be able to pass unimpeded along and over the route, and should be able to access the well without disturbing the integrity of surrounding infrastructure. Impermeable barriers such as asphalt, concrete, and plastic may trap hazardous gases and liquids

Docusign Envelope ID: 48EF7A00-5A9A-4408-8236-AB933E3D1789

underneath and could create a safety hazard if built over a well that later develops a leak.

CalGEM recommends that any well for which access is impeded or built over, against CalGEM's advice, should be evaluated by a qualified petroleum professional for compliance with the statutory objectives of isolating all hydrocarbon-bearing strata; protecting underground and surface waters; prevention of subsequent damage to life, health, property, and other resources; and prevention of loss of oil, gas, or reservoir energy. CalGEM recommends that wells that do not meet these standards are abandoned or re-abandoned prior to construction. The well information can be accessed through CalGEM's Well Finder database mentioned above. PRC section 3208, subdivision (a), provides the primary statutory authority for CalGEM to oversee adequate abandonment of wells. Additionally, CalGEM has developed the regulatory guidance for operators to be followed during well abandonment, which are listed within California Code of Regulation, title 14 (CCR) section 1723 and associated sub-sections (for onshore wells), and section 1745 and associated sub-sections (for offshore wells).

There is no guarantee that a well abandoned in compliance with current Division requirements as prescribed by law will not start leaking in the future. Due to the inability to predict all subsurface conditions or changes, it always remains a possibility that any well may start to leak oil, gas, and/or water after abandonment, no matter how thoroughly the well was plugged and abandoned. CalGEM acknowledges wells plugged and abandoned to the most current Division requirements as prescribed by law have a lower probability of leaking in the future, however there is no guarantee that such abandoned wells will not leak.

CalGEM advises that all wells identified on the development parcel prior to, or during, development activities be tested for liquid and gas leakage. Surveyed locations in Latitude and Longitude, NAD 83 decimal format, and leak testing results should be provided to CalGEM. CalGEM expects any wells found leaking to be reported to CalGEM immediately.

PRC section 3208.1 gives CalGEM the authority to order or permit the re-abandonment of any well where it has reason to question the integrity of the previous abandonment. Responsibility for re-abandonment costs may be affected by the choices made by the local permitting agency, property owner, and/or developer in considering the general advice set forth in this letter. The PRC continues to define the person or entity responsible for re-abandonment as:

1. The property owner - If the well was plugged and abandoned in conformance with Division requirements at the time of abandonment, and in its current condition does not pose an immediate danger to life, health, and property, but requires additional work solely because the owner of the property on which the well is located proposes construction on the property that would prevent or impede access to the well for purposes of remedying a currently perceived future

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problem, then the owner of the property on which the well is located shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.

2. The person or entity causing construction over or near the well - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and the property owner, developer, or local agency permitting the construction failed either to obtain an opinion from the supervisor or district deputy as to whether the previously abandoned well is required to be re-abandoned, or to follow the advice of the supervisor or district deputy not to undertake construction that impedes access, then the person or entity causing the construction over or near the well shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.

3. The party or parties responsible for disturbing the integrity of the abandonment - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and after that time someone other than the operator or an affiliate of the operator disturbed the integrity of the abandonment in the course of developing the property, then the party or parties responsible for disturbing the integrity of the abandonment shall be responsible for the re-abandonment.

Should any wells require abandonment or re-abandonment, the responsible party must submit a Notice of Intention (NOI) to CalGEM through WellSTAR. The NOI form can be accessed in the 'Plugging and Abandonment' section of the following link: https://www.conservation.ca.gov/calgem/for_operators.

No well work may be performed on any oil, gas, or geothermal well without written approval from CalGEM. Well work requiring approval includes, but is not limited to, mitigating leaking gas or other fluids from abandoned wells, modifications to well casings, and/or any other re-abandonment work. CalGEM also regulates the top of a plugged and abandoned well's minimum and maximum depth below final grade. CCR section1723.5 states well casings shall be cut off at least 5 feet but no more than 10 feet below the surface of the ground. If any well needs to be lowered or raised (i.e. casing cut down or casing riser added) to meet this regulation, a permit from CalGEM is required before work can start.

CalGEM makes the following additional recommendations to the local permitting agency, property owner, and developer:

1. To ensure that present and future property owners are aware of (a) the existence of all wells located on the property, and (b) potentially significant issues associated with any improvements near oil or gas wells, CalGEM recommends that information regarding the below identified well(s), and any other pertinent information obtained after the issuance of this letter, be communicated to the appropriate county recorder for inclusion in the title information of the subject

Docusign Envelope ID: 48EF7A00-5A9A-4408-8236-AB933E3D1789

real property.

2. CalGEM recommends that any soil containing hydrocarbons be disposed of in accordance with local, state, and federal laws. Please notify the appropriate authorities if soil containing significant amounts of hydrocarbons is discovered during development.

As indicated in PRC section 3106, CalGEM has statutory authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil, gas, and geothermal deposits; and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to CalGEM's authority to order work on wells pursuant to PRC sections 3208.1 and 3224, it has authority to issue civil and criminal penalties under PRC sections 3236, 3236.5, and 3359 for violations within CalGEM's jurisdictional authority. CalGEM does not regulate grading, excavations, or other land use issues.

Should you have any questions, or if any wells are encountered that were not part of this letter, contact CalGEM at (661) 322-4031 or via email at CalGEMCentralCSWR@conservation.ca.gov.

Sincerely,

Jeff Kimber

Jeff Kimber
Supervising Oil and Gas Engineer

Enclosure

Docusign Envelope ID: 48EF7A00-5A9A-4408-8236-AB933E3D1789

Enclosure: The wells listed below are reported to be located within and nearby the parcel boundary and may have future access impeded.

Township, Range, Section No.	**API No.**	**Well Name**
T10N/R13W- Sec. 2-8, 10, 18	No Wells Found	
T10N/R14W- Sec. 1-2, 11-12, 14-15, 22-23	0402989961	M. K. 3
T11N/R13W- Sec. 21,31-33	No Wells Found	
T11N/R14W- Sec. 25-26, 35-36	No Wells Found	

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Office Memorandum

To: Lorelei Oviatt, Director
Planning and Natural Resources Department
Attn: Mark Tolentino, Planner III

August 14, 2025

From: Cesar Ayon, Engineering Manager
Public Works Department/Development Review Division

Subject: Environmental Impact Report – Discovery Solar PV and Storage Project.
Location: The proposed project site is located at the western edge of the Antelope Valley, approximately six miles southwest of the community of Mojave, approximately nine miles southeast of the City of Tehachapi, approximately eight miles northwest of the unincorporated community of Rosamond and approximately 20 miles west of Edwards Air Force Base. Portions of the project are adjacent to and on both sides of the Tehachapi Willow Springs Road, and the LADWP aqueduct. The Project is located within the Monolith, Willow Springs and Soledad Mountain U.S. Geological Survey 7.5-minute quadrangle and spans multiple Townships, Ranges and Sections.

Development Review 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 Rodd Parke of this Division at (661) 862-8848.

Floodplain Management Division

Our section 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.

The subject property is subject to flooding.

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.

Associated flood hazard requirements will need to be incorporated into the design of this project per

the Kern County Floodplain Management Ordinance.

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.

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.

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.

Gloria Murillo
4650 W. 111th St
Inglewood, Ca 90304
Email: ollirum_cire@outlook.com
310-725-7419

Aug 19, 2025

To:
Mark Tolentino, Planner III
Kern County Planning and Natural Resources Department
2700 “M” Street, Suite 100
Bakersfield, CA 93301
Email: TolentinoM@kerncounty.com

CC:
Discovery Solar PV and Storage, LLC (Terragen Solar)

Subject: Scoping Comments on the Draft Environmental Impact Report for Discovery Solar PV and Storage Project (PP24408) – Impacts to APN: 474-071-19

Dear Mr. Tolentino,
I am the owner of property identified as **APN: 474-071-19**, which lies in immediate proximity to the proposed Discovery Solar PV and Storage Project. I am submitting these scoping comments in response to the Notice of Preparation (NOP) for the Draft Environmental Impact Report (EIR).
Because my parcel is located within the project’s impact area, this development presents significant risks to my property’s value, usability, and long-term viability. Pursuant to CEQA, the Draft EIR must thoroughly evaluate and mitigate the following issues:

1. Direct Impacts to APN 474-071-19 Property Value

The Draft EIR must evaluate how construction and operation of this project will diminish the fair market value of **APN 474-071-19**. Proximity to industrial-scale solar and storage facilities causes loss of marketability, reduced desirability, and impaired use of neighboring parcels. This is a foreseeable economic impact requiring study and mitigation.

2. Cumulative Burden on the Area

The Antelope Valley/eastern Kern region already hosts multiple utility-scale solar projects. The Draft EIR must include a robust cumulative analysis of the effects on landowners such as myself, including declining property values, degraded quality of life, and the erosion of residential and agricultural uses. (CEQA Guidelines §§15130, 15065).

3. Visual and Character Impacts

The industrialization of thousands of acres adjacent to **APN 474-071-19** will permanently alter scenic views, rural landscape, and nighttime conditions. The Draft EIR must analyze visual impacts specifically from my parcel and require setbacks, screening, and financial mitigation.

4. Health and Safety Concerns

The proximity of large-scale battery storage facilities to **APN 474-071-19** creates fire, explosion, and toxic release risks. The Draft EIR must analyze emergency response capabilities for this area, disclose worst-case hazard scenarios, and evaluate impacts on my property's safety and insurability.

5. Conversion of Agricultural and Rural Lands

If project development results in the conversion of farmland or productive soils, this is a permanent loss requiring mitigation. My parcel is located within an area traditionally used for agriculture and rural residential, and its viability would be negatively affected by industrial encroachment.

6. Reasonable Alternatives

CEQA requires analysis of project alternatives that would reduce impacts on **APN 474-071-19** and similarly situated parcels, including:

- Reduced project footprint
- Relocation to less sensitive areas
- Use of brownfield or disturbed sites

Failure to evaluate these alternatives would violate CEQA Guidelines §15126.6.

7. Environmental Justice and Fairness

This project primarily exports energy outside Kern County while leaving adjacent landowners like myself to bear the burdens. The Draft EIR must evaluate disproportionate impacts on nearby residents and consider equitable mitigation, including voluntary acquisition of directly impacted parcels such as **APN 474-071-19**.

Conclusion

If the Draft EIR does not adequately address the issues above, I reserve all rights to challenge the adequacy of the environmental review through administrative and legal remedies. I also request that Kern County require the project proponent to directly engage with adjacent landowners to resolve conflicts fairly including through voluntary land acquisition or compensation.
Please add me to the distribution list for all future notices and documents related to this project.

Sincerely,
Gloria Murillo

Mark Tolentino

From: Jill Mccormick <historicpreservation@quechantribe.com>
Sent: Tuesday, August 19, 2025 4:09 PM
To: Mark Tolentino
Subject: Re: [EXTERNAL]:RE: DEIR for the Discovery Solar PV and Storage Project

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.

Hello Mark,
Thank you for the information.

Jill

H. Jill McCormick, M.A.
Historic Preservation Office
Ft. Yuma Quechan Indian Tribe
P.O. Box 1899
Yuma, AZ 85366-1899
Office: 760-919-3631
Cell: 928-920-6521

From: Mark Tolentino <TolentinoM@kerncounty.com>
Sent: Tuesday, August 19, 2025 4:06 PM
To: Jill Mccormick <historicpreservation@quechantribe.com>
Subject: [EXTERNAL]:RE: DEIR for the Discovery Solar PV and Storage Project

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

Hello Jill,

Thank you for reaching out in response to the Discovery Solar PV and Storage Project NOP. We'll add this comment to the record and pass along to the applicant.

Keep in mind, you'll still remain on the mailing list for all subsequent notices for the CEQA and public hearing process, but we will defer to this response.

Thanks and have a great rest of your day,

Mark Tolentino
Planner III
Kern County Planning and Natural Resources Department
P: 661-862-5041 E: TolentinoM@kerncounty.com
~ *Kern County ~ Rooted in Resources* ~
LinkedIn profile

From: Jill Mccormick <historicpreservation@quechantribe.com>
Sent: Tuesday, August 19, 2025 3:47 PM
To: Mark Tolentino <TolentinoM@kerncounty.com>
Subject: DEIR for the Discovery Solar PV and Storage Project

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.

Good afternoon,
This email is to inform you that the Historic Preservation Office of the Ft. Yuma Quechan Tribe does not wish to comment on this project. We defer to the local Tribes and support their determinations on this matter.

Jill

H. Jill McCormick, M.A.
Historic Preservation Office
Ft. Yuma Quechan Indian Tribe
P.O. Box 1899
Yuma, AZ 85366-1899
Office: 760-919-3631
Cell: 928-920-6521


GREAT SEAL
TOGETHER WE
PROGRESS
FT. YUMA QUECHAN INDIANS

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August 19, 2025

To: Lorelei Oviatt, Director
Planning and Natural Resources Department
Mark Tolentino, Planner III

From: Jeremy M. Brock, County Surveyor
By: Andres Arias, Engineering Support Supervisor Phone: 28959

Subject: Notice of Preparation of a Draft Environmental Impact Report for the Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC (TerraGen Solar) (PP24408).

I have reviewed the above noted NOP of a 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).

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

Office Memorandum - Kern County

TO: [Distribution List] **PLEASE SIGN AND DATE BELOW AS SOON AS RECEIVED AND RETURN TO PLANNING & NATURAL RESOURCES DEPARTMENT**

FROM: LORELEI H. OVIATT, DIRECTOR
Planning & Natural Resources Department

DATE: July 31, 2025

By: Mark Tolentino, Planner III (661) 862-5041

SUBJECT: NOTICE OF PREPARATION OF ENVIRONMENTAL IMPACT REPORT

Attached is the Notice of Preparation (NOP) for the **Discovery Solar PV and Storage Project** by Discovery Solar PV and Storage, LLC (TerraGen Solar) (PP24408). The NOP is also available on the Department website at https://kernplanning.com/planning/notices-of-preparation/. Per CEQA requirements, your agency has 30 days to submit comments regarding the project and the upcoming Environmental Impact Report.

Any comments should be addressed to Mark Tolentino, Planner III at the Planning and Natural Resources Department. The comment period ends **Tuesday, September 2, 2025 at 5:00 pm.** A scoping meeting will be held at the Public Services Building on **Thursday, August 21, at 1:30 p.m.** to receive agency comments on the preparation of the Environmental Impact Report.

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: Mark Tolentino, Planner III. Thank you in advance for your cooperation.

Distribution List (Kern County):

Airports Department
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RECEIVED: 8-1-2025 **By:** Jeremy M. Brock **Dept.:** PWD-Survey

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California
Department of Conservation
Geologic Energy Management Division

Gavin Newsom, Governor
Jennifer Lucchesi, Director
715 P Street, MS 1803
Sacramento, CA. 95814
T: (916) 445-5986

08/26/2025

VIA EMAIL

Kern County Planning and Natural Resources Department
Mark Tolentino
2700 M Street, Suite 100 Bakersfield, CA 93301
TolentinoM@kerncounty.com.

Assessor Parcel Number(s): 47406017
Property Owner(s): *Discovery Solar PV and Storage, LLC*
Project Location Address: *Tehachapi Willow Springs Road and LADWP Aqueduct*

PROJECT TITLE: *Discovery Solar PV and Storage*

Public Resources Code (PRC) section 3208.1 establishes re-abandonment responsibility when previously plugged and abandoned oil, gas or geothermal wells will be impacted by planned property development or construction activities. Local permitting agencies, property owners, and/or developers should be aware of, and fully understand, that significant and potentially dangerous issues may be associated with development near previously abandoned oil, gas, and geothermal wells.

The California Geologic Energy Management Division (CalGEM) has received the above-referenced project dated *07/31/2025*. To assist local permitting agencies, property owners, and developers in making safe and practical land use decisions regarding potential development near oil, gas, or geothermal wells, CalGEM provides a table in the attached enclosure of the wells within the parcel boundary or in its vicinity, based on CalGEM's Well Finder database (https://maps.conservation.ca.gov/doggr/wellfinder/).

CalGEM categorically advises against building over, or in any way impeding access to, oil, gas, or geothermal wells. Impeding access to a well could result in the need to remove any structure or obstacle that prevents or impedes access including, but not limited to, buildings, housing, fencing, landscaping, trees, pools, patios, sidewalks, roadways, and decking at the landowner's expense if there is a need to access a well. Maintaining sufficient access is considered the ability for a well servicing unit and associated necessary equipment (consisting of well servicing rig, pumping equipment, pipe trailer) to reach a well from a public street or access way, solely over the parcel on which the well is located. A well servicing unit, and any necessary equipment, should be able to pass unimpeded along and over the route, and should be able to access the well without disturbing the integrity of surrounding infrastructure. Impermeable barriers such as asphalt, concrete, and plastic may trap hazardous gases and liquids underneath and could create a safety hazard if built over a well that later develops a leak.

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CalGEM recommends that any well for which access is impeded or built over, against CalGEM's advice, should be evaluated by a qualified petroleum professional for compliance with the statutory objectives of isolating all hydrocarbon-bearing strata; protecting underground and surface waters; prevention of subsequent damage to life, health, property, and other resources; and prevention of loss of oil, gas, or reservoir energy. CalGEM recommends that wells that do not meet these standards are abandoned or re-abandoned prior to construction. The well information can be accessed through CalGEM's Well Finder database mentioned above. PRC section 3208, subdivision (a), provides the primary statutory authority for CalGEM to oversee adequate abandonment of wells. Additionally, CalGEM has developed the regulatory guidance for operators to be followed during well abandonment, which are listed within California Code of Regulation, title 14 (CCR) section 1723 and associated sub-sections (for onshore wells), and section 1745 and associated sub-sections (for offshore wells).

There is no guarantee that a well abandoned in compliance with current Division requirements as prescribed by law will not start leaking in the future. Due to the inability to predict all subsurface conditions or changes, it always remains a possibility that any well may start to leak oil, gas, and/or water after abandonment, no matter how thoroughly the well was plugged and abandoned. CalGEM acknowledges wells plugged and abandoned to the most current Division requirements as prescribed by law have a lower probability of leaking in the future, however there is no guarantee that such abandoned wells will not leak.

CalGEM advises that all wells identified on the development parcel prior to, or during, development activities be tested for liquid and gas leakage. Surveyed locations in Latitude and Longitude, NAD 83 decimal format, and leak testing results should be provided to CalGEM. CalGEM expects any wells found leaking to be reported to CalGEM immediately.

PRC section 3208.1 gives CalGEM the authority to order or permit the re-abandonment of any well where it has reason to question the integrity of the previous abandonment. Responsibility for re-abandonment costs may be affected by the choices made by the local permitting agency, property owner, and/or developer in considering the general advice set forth in this letter. The PRC continues to define the person or entity responsible for re-abandonment as:

1. The property owner - If the well was plugged and abandoned in conformance with Division requirements at the time of abandonment, and in its current condition does not pose an immediate danger to life, health, and property, but requires additional work solely because the owner of the property on which the well is located proposes construction on the property that would prevent or impede access to the well for purposes of remedying a currently perceived future problem, then the owner of the property on which the well is located shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.

2. The person or entity causing construction over or near the well - If the well was plugged and abandoned in conformance with Division requirements at the time of plugging and abandonment, and the property owner, developer, or local agency permitting the construction failed either to obtain an opinion from the supervisor or district deputy as to whether the previously abandoned well is required to be re-abandoned, or to follow the advice of the supervisor or district deputy not to undertake construction that impedes access, then the person or entity causing the construction over or near the well shall obtain all rights necessary to re-abandon the well and be responsible for the re-abandonment.

3. The party or parties responsible for disturbing the integrity of the abandonment - If the well was plugged and abandoned in conformance with Division requirements at the time of

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plugging and abandonment, and after that time someone other than the operator or an affiliate of the operator disturbed the integrity of the abandonment in the course of developing the property, then the party or parties responsible for disturbing the integrity of the abandonment shall be responsible for the re-abandonment.

Should any wells require abandonment or re-abandonment, the responsible party must submit a Notice of Intention (NOI) to CalGEM through WellSTAR. The NOI form can be accessed in the 'Plugging and Abandonment' section of the following link: https://www.conservation.ca.gov/calgem/for_operators.

No well work may be performed on any oil, gas, or geothermal well without written approval from CalGEM. Well work requiring approval includes, but is not limited to, mitigating leaking gas or other fluids from abandoned wells, modifications to well casings, and/or any other re-abandonment work. CalGEM also regulates the top of a plugged and abandoned well's minimum and maximum depth below final grade. CCR section1723.5 states well casings shall be cut off at least 5 feet but no more than 10 feet below the surface of the ground. If any well needs to be lowered or raised (i.e. casing cut down or casing riser added) to meet this regulation, a permit from CalGEM is required before work can start.

CalGEM makes the following additional recommendations to the local permitting agency, property owner, and developer:

1. To ensure that present and future property owners are aware of (a) the existence of all wells located on the property, and (b) potentially significant issues associated with any improvements near oil or gas wells, CalGEM recommends that information regarding the below identified well(s), and any other pertinent information obtained after the issuance of this letter, be communicated to the appropriate county recorder for inclusion in the title information of the subject real property.

2. CalGEM recommends that any soil containing hydrocarbons be disposed of in accordance with local, state, and federal laws. Please notify the appropriate authorities if soil containing significant amounts of hydrocarbons is discovered during development.

As indicated in PRC section 3106, CalGEM has statutory authority over the drilling, operation, maintenance, and abandonment of oil, gas, and geothermal wells, and attendant facilities, to prevent, as far as possible, damage to life, health, property, and natural resources; damage to underground oil, gas, and geothermal deposits; and damage to underground and surface waters suitable for irrigation or domestic purposes. In addition to CalGEM's authority to order work on wells pursuant to PRC sections 3208.1 and 3224, it has authority to issue civil and criminal penalties under PRC sections 3236, 3236.5, and 3359 for violations within CalGEM's jurisdictional authority. CalGEM does not regulate grading, excavations, or other land use issues.

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Should you have any questions, or if any wells are encountered that were not part of this letter, contact CalGEM at *(661)322-4031* or via email at calgemcentralcswr@conservation.ca.gov.

Sincerely,

8/26/2025

Jeff Kimber

Jeff Kimber
Supervising Oil and Gas Engineer

cc: -

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Enclosure: The wells listed below are reported to be located within and nearby the parcel boundary and may have future access impeded.

No wells found within the submitted APNs.

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

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

August 27, 2025

Mark Tolentino, Planner III
Kern County
Planning and Natural Resources Department
2700 "M" Street, Suite 100
Bakersfield, California 93301
(661) 862-5041
TolentinoM@kerncounty.com

Subject: Discovery Solar PV and Storage Project (Project)
Notice of Preparation (NOP)
State Clearinghouse No. 2025071048

Dear Mark Tolentino:

The California Department of Fish and Wildlife (CDFW) received a NOP from Kern County (County) for the above-referenced Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

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

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statue 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 projects and related activities that have the potential to adversely affect fish and wildlife resources.

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

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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 may be required.

Nesting Birds: CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, 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).

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.

PROJECT DESCRIPTION SUMMARY

Proponent: Discovery Solar PV and Storage, LLC (Terra-Gen)

Objective: The Project proposes to construct a photovoltaic (PV) solar facility with associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours (GWh) of energy storage capacity (approximately 1,000 MW) on an approximate 7,700-acre Project site. Project infrastructure includes an operations and maintenance (O&M) facility, telecommunication facilities, energy storage system(s), two onsite collector substations, and temporary laydown yards. The proposed Project also includes a generation-tie (gen-tie) line to connect the Project to the existing Windhub Substation. Construction of a new 230-kilovolt (kV) overhead power distribution line from an existing substation south of the Los Angeles Department of Water and Power (LADWP) aqueduct would be required to provide power to the Project. The new gen-tie line would head north and cross the LADWP aqueduct and then combine with stepped-up generation from an additional collector substation via either a switchyard or direct connection. From there, the two circuits would be combined into a double circuit that would run north to a new 230-kV switchyard to connect and/or route the Project gen-tie circuits into an existing gen-tie corridor, previously approved and constructed as part of the Sanborn Solar Project, and then west towards the Southern California Edison (SCE) Windhub Substation. The proposed gen-tie line would run on poles at a maximum height of 250 feet.

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Location: The proposed Project site is located at the western edge of the Antelope Valley, approximately 6 miles southwest of the community of Mojave, approximately 9 miles southeast of the City of Tehachapi, approximately 8 miles northwest of the unincorporated community of Rosamond, and approximately 20 miles west of Edwards Air Force Base. The Project is located within the Monolith, Willow Springs, and Soledad Mountain U.S. Geological Survey 7.5-minute quadrangles, and spans multiple Townships, Ranges, and Sections including the following: Township 10 North, Range 13 West, Sections 2-8, 10, and 18; Township 10 North, Range 14 West, Sections 1, 2, 11, 12, 14, 15, 22, and 23; Township 11 North, Range 13 West, Sections 21, 31, 32, and 33; and Township 11 North, Range 14 West Sections 25, 26, 35, 36. Portions of the project are adjacent to and on both sides of Tehachapi Willow Springs Road and the LADWP aqueduct.

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist the County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the Draft Environmental Impact Report (DEIR) prepared for this Project.

As stated in the NOP, the proposed Project area ranges in elevation between 2,970 and 3,760 feet and is located south of the Tehachapi Mountains where lands gradually slope downward from the northwest towards the southeast. Desert vegetation dominates the regional landscape of the proposed Project site and includes Mojave desert scrub (creosote bush scrub, cheesebush scrub), western Joshua trees, and other desert species. Based on a review of the Project description, California Natural Diversity Database (CNDDB) records, and aerial imagery of the Project site and surrounding habitat, the Project is within the geographic range of and could potentially impact several special-status animal species including, but not limited to, the State threatened Mohave ground squirrel (*Xerospermophilus mohavensis*); the State endangered and federally threatened desert tortoise (*Gopherus agassizii*); the State threatened Swainson's hawk (*buteo Swainsonii*); the State fully protected golden eagle (*Aquila chrysaetos*); the State candidate western burrowing owl (*athene cunicularia hypugaea)* and Crotch's bumblebee (*bombus crotchii)*; the State species of special concern American badger (*Taxidea taxus*), Tulare grasshopper mouse (*Onychomys torridus tularensis*), Tehachapi pocket mouse (*Perognathus alticola inexpectatus*), Townsend's big-eared bat (*Corynorhinus* townsendii), Le Conte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), long-eared owl (*Asio otus*), coast horned lizard (*Phrynosoma blainvillii*), and northern California legless lizard (*Anniella pulchra*); the State watch list California horned lark (*Eremophila alpestris actia*), ferruginous hawk (*Buteo regalis*), merlin (*Falco columbarius*), and prairie falcon (*Falco mexicanus*); and the State protected furbearing mammal desert kit fox (*Vulpes macrotis arsipus*).

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The Project is also within the geographic range of several special-status plant species, including, but not limited to, the State and federally endangered and California Rare Plant Rank (CRPR) 1B.1 Bakersfield cactus (*Opuntia basilaris* var*. treleasei*); the State candidate western Joshua tree (*Yucca brevifolia*); the CRPR 1B.2 alkali mariposa lily (*Calochortus striatus*) and desert cymopterus (*Cymopterus deserticola*); the CRPR 1B.1 Horn's milk-vetch (*Astragalus hornii var. hornii*); the CRPR 1B.2 Latimer's woodland-gilia (*Saltugilia latimeri*); the 1B.1 pale-yellow layia (*Layia heterotricha*); the CRPR 1B.3 southern Sierra monardella (*Monardella linoides ssp. anemonoides*) and Tehachapi mondardella (*Monardella linoides ssp. Oblonga*); and the CRPR 1B.2 recurved larkspur (*Delphinium recurvatum*).

In order to support the adequate assessment of potential impacts to biological resources in the DEIR, CDFW recommends that a qualified biologist perform relevant database reviews and other research of the Project site and surrounding area, then conduct focused habitat assessments and/or focused biological surveys during the appropriate survey period(s) in order to determine whether any special-status species may be present within the Project site.

CDFW recommends this initial work be documented within the DEIR and used to inform further efforts that may be needed thereafter including the need for additional protocol surveys and/or the development of avoidance, minimization, and/or mitigation measures. This information and analysis may then be used in the DEIR to consider the development of modified or new Project alternatives to avoid and minimize potentially significant environmental impacts on the biological environment. This information is critical to make an informed decision during the CEQA process and to ensure Project compliance with CESA, Fish and Game Code, and other applicable State and federal laws and regulations.

Mohave Ground Squirrel

The Project site is within close proximity to the westernmost historic range of Mojave ground squirrel (MGS). Based on aerial imagery, the Project may contain suitable habitat for MGS (CDFW 2025). Suitable MGS habitat includes all broadly described plant communities in the western Mojave Desert including saltbush scrub, creosote bush scrub, western Joshua tree woodland, and sagebrush scrub (Gustafson 1993). CDFW recommends that a qualified biologist conduct a habitat assessment in advance of the biological technical studies conducted in support of the DEIR. If potentially suitable habitat is identified, CDFW recommends that a qualified biologist conduct focused surveys for MGS following the methods described in the Mohave Ground Squirrel Survey Guidelines (CDFW 2023a). Because of the large size of the Project site, CDFW recommends that the Project applicant propose a surveying methodology for CDFW review and approval prior to initiation of protocol surveys. It is also recommended that the results of these surveys be submitted to CDFW for evaluation. If an individual MGS or MGS burrow is detected, consultation with CDFW is

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recommended for guidance on how to implement the Project and avoid take of the species or for guidance on obtaining an Incidental Take Permit (ITP), pursuant to Fish and Game Code section 2081 subdivision (b).

Desert Tortoise

The Project site is within the known geographic range of desert tortoise (DT) and there are multiple historical occurrences within the Project area (CDFW 2025). DT are most common in desert scrub, desert wash, and Joshua tree habitats (CDFW 2018a). Based on aerial imagery, the Project site consists almost entirely of desert scrub communities which may have the potential to support DT. CDFW recommends that protocol DT surveys be conducted following the protocol contained in "Preparing for any action that may occur within the range of the desert tortoise (*Gopherus agassizii*)" (USFWS 2019) as part of the biological studies conducted in support of the DEIR. Survey results should be submitted to CDFW. . If an individual DT or potential DT burrow is detected, consultation with CDFW is recommended for guidance on how to implement the Project and avoid take of the species or for guidance on obtaining an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

Swainson's Hawk

The Project is within the known geographic range of Swainson's hawk (SWHA). SWHA are known to travel for miles to forage, exhibit high nest-site fidelity year after year, and lack of suitable nesting habitat in the Antelope Valley and the Kern County portion of the Mohave Desert limits their local distribution and abundance (CDFW 2016). Based on aerial imagery, the Project site and adjacent areas may contain suitable habitat for SWHA nesting and foraging.

As SWHA have the potential to use the Project site, CDFW recommends that a qualified biologist conduct surveys for nesting SWHA following 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 (SWHA Survey Protocol; California Energy Commission 2010) protocol as part of the biological technical studies conducted in support of the DEIR.

In addition to conducting SWHA surveys, CDFW recommends the DEIR include the following measures:

> **Recommended Mitigation Measure 1: SWHA Surveys Prior to Construction**
>
> Depending on the time between the initial survey efforts conducted in support of the DEIR and Project construction, CDFW recommends that additional surveys, following the SWHA Survey Protocol, be repeated the survey season immediately prior to construction.

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Recommended Mitigation Measure 2: SWHA Avoidance Buffer

If Project-specific activities will take place during the SWHA nesting season (i.e., March 1 through September 15), and active SWHA nests are present, CDFW recommends a minimum 0.5-mile no-disturbance buffer be delineated and maintained around each nest, regardless of whether it was detected by surveys or observed incidentally. These buffers would 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, to prevent nest abandonment and other take of SWHA as a result of Project activities.

Recommended Mitigation Measure 3: SWHA Take Authorization

In the event an active SWHA nest is detected, and a 0.5-mile no-disturbance buffer is not feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), is necessary to comply with CESA.

Recommended Mitigation Measure 4: Loss of SWHA Foraging Habitat

CDFW recommends compensation for the loss of SWHA foraging habitat as described 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 (California Energy Commission 2010) to reduce impacts to foraging habitat to less than significant. The SWHA survey protocol recommends that plans for mitigating loss of SWHA foraging habitat be mitigated by providing HM lands within the Antelope Valley SWHA breeding range at a minimum 2:1 ratio for such habitat impacted within a five-mile radius of active SWHA nest(s). CDFW considers a nest active if it was used one or more times within the last 5 years.

Golden Eagle

The Project site is within the known geographic range of golden eagle (GOEA) and there are several documented occurrences of GOEA in the Project vicinity (CDFW 2025). GOEA are known to inhabit open areas with large trees, utility towers, and cliffs for nesting (Pagel et al. 2010). These habitat features may be present near the Project site, and as such, CDFW recommends that a qualified biologist conduct a habitat assessment to determine whether suitable GOEA nesting habitat is present within the Project site or vicinity. If suitable nesting habitat is identified, CDFW recommends incorporating survey methods outlined in the Protocol for the Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations guidelines (Pagel et al. 2010). If a GOEA nest is detected, consultation with CDFW is recommended for

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guidance on how to implement the Project and avoid take of the species or for guidance on obtaining an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

Western Burrowing Owl

The California Fish and Game Commission approved western burrowing owl (BUOW) as a candidate for potential listing as a protected species under CESA on October 10, 2024, and published these findings in the California Regulatory Notice Register on October 25, 2024. As such, BUOW is now a candidate under CESA and receives the same legal protection afforded to an endangered or threatened species (Fish & G. Code, §§ 2074.2 & 2085).

The Project site is within the known geographic range of BUOW, and there are numerous recent and historical occurrences located within and adjacent to the Project site (CDFW 2025). BUOW typically inhabit open grasslands and desert scrublands containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. BUOW may also attempt to use “man-made burrows” such as pipes or culverts. Based on aerial imagery the Project site and adjacent areas likely contain suitable habitat for BUOW nesting and foraging.

As there is a strong likelihood that BUOW could be impacted by Project activities, CDFW recommends assessing presence/absence of BUOW on the Project site, as well as a 500-meter buffer surrounding the Project site, by having a qualified biologist conduct surveys following the 2012 Staff Report on Burrowing Owl Mitigation (2012 Staff Report; CDFG 2012) as part of the biological studies conducted in support of the DEIR.

In addition to conducting BUOW surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 5: BUOW Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the DEIR and Project construction, CDFW recommends that additional surveys following the 2012 Staff Report be repeated the survey season immediately prior to construction.

Recommended Mitigation Measure 6: BUOW Avoidance Buffer

Should a BUOW individual or known BUOW den (active or inactive) be detected, either during pre-construction surveys or construction activities, CDFW recommends that no-disturbance buffers, as outlined in the 2012 Staff Report on Burrowing Owl Mitigation, be implemented prior to and during any ground-disturbing activities. CDFW also recommends that these buffers be implemented for both wintering and breeding BUOW.

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Recommended Mitigation Measure 7: BUOW Take Authorization

If a BUOW individual or known BUOW den (active or inactive) is detected, and the no-disturbance buffers outlined in the 2012 Staff Report are not feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), is necessary to comply with CESA.

Crotch's Bumble Bee

The Project site is within the known geographic range of the State candidate Crotch's bumble bee (CBB) and there are multiple historical occurrences near the Project Site (CDFW 2025). CBB inhabit a variety of habitats, including grasslands, scrublands, openings in woodlands, and areas with bare ground such as vacant lots, dirt roads, and levees (Xerces Society et al. 2018). CBB use requisite habitat elements for nesting, such as small mammal burrows and bunch/thatched grasses, which may be present in or near the Project site.

As CBB may be present within the Project site, CDFW recommends a qualified biologist conduct a habitat assessment to determine if the Project site and the immediate surrounding vicinity contain habitat suitable to support CBB. Potential nesting sites, which include all small mammal burrows, perennial bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, and hollow logs should be documented as part of the assessment. If suitable habitat is identified, CDFW recommends 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) as part of the biological studies conducted in support of the DEIR.

In addition to conducting a CBB habitat assessment and surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 8: CBB Surveys Prior to Construction

Depending on the time between the initial survey efforts, if potentially suitable habitat is identified and regardless of what time of year Project activities will be conducted, 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).

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Recommended Mitigation Measure 9: CBB Avoidance

If CBB is detected, 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. If CBB are detected during surveys and ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

Recommended Mitigation Measure 10: CBB Take Authorization

If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA..

American Badger

The Project site is within the known geographic range of American badger (AMBA). AMBA occupies sparsely vegetated land cover with dry, friable soils to excavate dens, which they use for cover, and that support fossorial rodent prey populations (i.e., ground squirrels, pocket gophers, etc.) (Zeiner et al. 1990). Based on aerial imagery, the Project site potentially contains habitat suitable for AMBA.

CDFW recommends that a qualified biologist assess the presence/absence of AMBA by conducting a focused field survey in all areas of potentially suitable habitat as part of the biological studies conducted in support of the DEIR. If surveys indicate the presence or potential presence of AMBA, consultation with the CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation.

Desert Kit Fox

The Project Site is within the known geographic range of desert kit fox (DKF) and this species is known to inhabit sparsely vegetated scrub habitats within the California desert that support small mammal populations (McGrew 1979). Based on aerial imagery, the Project Site appears to have suitable habitat for DKF denning and foraging. CDFW recommends that a qualified biologist assess the presence/absence of DKF by conducting a focused field survey in all areas of potentially suitable habitat as part of the biological studies conducted in support of the DEIR. If surveys indicate the presence or potential presence of DKF, consultation with the CDFW is recommended for guidance on take avoidance measures.

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Special Status Reptiles

The Project sites is within the known geographic range of coast horned lizard and northern California legless lizard, there are multiple nearby historical occurrences, and suitable habitat may be present for these species within the Project site (CDFW 2025).

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of the biological technical studies conducted in support of the DEIR. If potentially suitable habitat is identified, consultation with CDFW is recommended for guidance on developing Project-specific and species-specific survey methodology to be conducted as part of the biological technical studies.

Small Mammals and Bats

The Project site is within the known geographic range of Tehachapi pocket mouse, Townsend's big-eared bat, and Tulare grasshopper mouse, there are multiple nearby historical occurrences, and suitable habitat may be present for these species within the Project Site (CDFW 2025).

CDFW recommends that a qualified biologist assess the presence/absence of Tehachapi pocket mouse, Townsend's big-eared bat, and Tulare grasshopper by conducting a habitat assessment as part of the biological studies conducted in support of the CEQA document. If potentially suitable habitat is identified, consultation with CDFW is recommended for guidance on developing Project-specific and species-specific survey methodology to be conducted as part of the biological technical studies.

Special-Status Plants

CDFW recommends that the Project site be surveyed for special-status plants by a qualified botanist following the Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018b). This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period. Please note that adverse conditions from yearly weather patterns may prevent botanical field surveyors from determining the presence of, or accurately identifying, some special status plants in the surveyed area. Disease, drought, predation, fire, herbivory, or other disturbance may also preclude presence or identification of special status plants in any given year. Visiting the survey site in more than one year increases the likelihood of detection. If special-status plants are identified during surveys, consultation with CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation. If State endangered, threatened, or rare plants are identified during special status plant surveys and take cannot be avoided, then to ensure compliance with CESA and the Native Plant Protection Act (NPPA), consultation with CDFW for acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) and/or California Code of

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Regulations, Title 14, section 786.9, subdivision (b), is necessary to comply with CESA and the NPPA. Additional focused survey recommendations for Bakersfield cactus (BACA) and western Joshua tree (WJT) and are provided below.

Bakersfield Cactus

Portions of the Project site (e.g., western portions of the Project along foothills of Tehachapi Mountains) are within the known geographic and elevational range of BACA (Smith 2013, Rancho Santa Ana Botanic Garden 2017). While often confused with the more common beavertail cactus (*O. basilaris* var. *Basilaris*), BACA are known to occur on the east side of the Tehachapi Mountains and in the transition zone between the mountains and Antelope Valley floor. BACA can be difficult to distinguish from beavertail cactus and virtually all the morphological characteristics that have been used to differentiate BACA and beavertail cactus have some form of overlap (Cypher 2011). As such, CDFW recommends that special-status plant surveys document all occurrences of BACA ***and*** beavertail cactus as part of the biological technical studies conducted in support of the DEIR. If any BACA or beavertail individuals are found, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. If take of BACA cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), is necessary to comply with CESA.

Western Joshua Tree

According to aerial imagery and the Project NOP, WJT is confirmed to be present within the Project Site. CDFW recommends that a qualified botanist conduct focused WJT surveys to identify the locations, number, and health of individuals as part of the biological technical studies conducted in support of the DEIR. WJT is a candidate threatened species under CESA. Under CESA, species classified as a candidate species are afforded the same protection as CESA-listed species. Take of any CESA listed species is prohibited except as authorized by state law (Fish and Game Code, §§ 2080 & 2085). The California state legislature has enacted the Western Joshua Tree Conservation Act (WJTCA) which aims to provide protection of WJT and provides another permitting mechanism for the incidental take of WJT. For unavoidable impacts, CDFW recommends consultation with CDFW and obtaining appropriate take authorization under CESA.

Recommended Mitigation Measure 11: WJT Take Authorization

If take cannot be avoided, take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b), is necessary to comply with CESA. Additionally, the Project also has the option to obtain take authorization through issuance of a WJTCA ITP, pursuant to Fish and Game Code section 1927.3.

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Editorial Comments and/or Suggestions

Battery Energy Storage System Evaluation: The proposed Project includes installation of an approximately 1000 MW battery energy storage system (BESS) on the Project site. CDFW is aware of recent catastrophic fires resulting from lithium-ion BESS operations at BESS facilities within California. As such, these BESS systems warrant a careful evaluation for potential fire-related impacts to biological resources within and surrounding the Project site, particularly within nearby natural habitats. Lithium-ion BESS fires can release an array of toxic chemicals into the air (Mylenbusch et al. 2023). In addition to potential human health concerns, these emissions may also impact air quality for nearby wildlife, and harmful particulate matter may settle into soils or waterways, possibly affecting soil-dwelling organisms, burrowing mammals, and aquatic life. Concentrations of toxic gases and particulates may be highest in the immediate vicinity of the fire, and the risk of explosion exists, making the area hazardous for firefighters. Further, the use of water for fire suppression is not always appropriate and may exacerbate the fire.

As such, CDFW recommends the DEIR include a thorough analysis of the BESS component of the Project and evaluate the potential impacts of a catastrophic BESS fire on biological resources. CDFW recommends the evaluation detail the Project-specific measures that would be implemented to reduce the risk of catastrophic fire, and to carefully consider BESS siting, spacing, battery life and degradation, and the most appropriate fire protection/suppression system. CDFW also recommends that the BESS be sited away from the natural habitats adjacent to the Project site and that the Project evaluate multiple alternatives that avoid and minimize potential impacts to biological resources.

Wildlife Friendly Fencing: CDFW recommends that all fencing installed on the perimeter of the solar Project be designed to allow for passage of small and medium-sized wildlife, while impeding the passage of larger predators such as coyotes and similar species. Perimeter fencing should be installed with a four (4) to six (6) inch gap from the bottom of the fencing material and knuckled back to form a smooth edge and allow permeability for wildlife.

Cumulative Impacts: CDFW recommends that a cumulative impact analysis be conducted for all biological resources that will either be significantly or potentially significantly impacted by implementation of the Project, including those whose impacts are determined to be less than significant with mitigation incorporated or for those resources that are rare or in poor or declining health and will be impacted by the Project, even if those impacts are relatively small (i.e., less than significant). Cumulative impacts are recommended to be analyzed using an acceptable methodology to evaluate the impacts of this Project's incremental contribution to habitat loss and past, present, and reasonably foreseeable future projects on resources and be focused specifically on the resource, not the Project. The cumulative impacts analysis should specifically

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include all past, present, and foreseeable renewable energy projects in the Antelope Valley area. An appropriate resource study area should also be identified and mapped for each resource being analyzed and utilized for this analysis. CDFW staff is available for consultation in support of cumulative impacts analyses as a trustee and responsible agency under CEQA.

Lake and Streambed Alteration: The Project site contains numerous potential streams and associated hydrologic features, and certain stream features, such as alluvial fans and desert washes, may be difficult to delineate using field verification only. Project activities that substantially change the bed, bank, and channel of any river, stream, or lake are subject to CDFW's regulatory authority pursuant 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 or intermittent as well as those that are perennial and may include those that are highly modified such as canals and retention basins.

CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement (LSAA); therefore, if the CEQA document 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 LSAA 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.

Nesting Birds: CDFW encourages that Project ground-disturbing activities occur during the bird non-nesting season; however, if ground- or vegetation-disturbing activities must occur during the nesting season (February 1st through September 15th), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Code sections as referenced above.

The Project site and vicinity are known to support many species of nesting birds, including Le Conte's thrasher (*Toxostoma lecontei*), loggerhead shrike (*Lanius ludovicianus*), long-eared owl (*Asio otus*), California horned lark (*Eremophila alpestris*), ferruginous hawk (*Buteo regalis*), merlin (*Falco columbarius*), and prairie falcon (*Falco mexicanus*). If the nesting season cannot be avoided, CDFW recommends that a qualified biologist conduct a pre-construction survey for active nests no more than 10 days prior to the start of ground or vegetation 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 Project site to identify nests and determine

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their status. A sufficient area means any area potentially affected, either directly or indirectly, by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. CDFW recommends that a qualified biologist establish a behavioral baseline of all identified nests. Once Project activities begin, CDFW recommends having a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends halting the work causing that change and consulting with CDFW 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 the birds have fledged and are no longer reliant upon the nest or on-site 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 Project site 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.

CNDDB: Please note that the CNDDB is populated by records through voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDB but where there is suitable habitat features capable of supporting species. A lack of an occurrence record in the CNDDB does not mean a species is not present. To adequately assess any potential Project-related impacts to biological resources, surveys conducted by a qualified biologist during the appropriate survey period(s) using the appropriate protocol survey methodology are warranted to determine whether any special-status species are present at or near the Project site.

Artificial Lighting: Installation of outdoor artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication, determining when to begin foraging, thermoregulation behavior, and migration (Longcore and Rich 2004, Miller 2006, Nightingale et al. 2006, Perry et al. 2008, Stone et al. 2009). Phototaxis, a phenomenon which results in attraction and movement towards light, can disorient, entrap, and temporarily blind wildlife species that experience it (Longcore and Rich 2004). Project activities could result in disruption of wildlife behavior, inadvertent injury, or mortality.

CDFW recommends that the DEIR for the Project include an analysis of artificial lighting as it relates to biological resources and incorporate enforceable mitigation measures to decrease the impacts of artificial outdoor lighting on wildlife species. Potentially feasible mitigation measures include motion sensitive lighting; mounting light fixtures as low as possible to minimize light trespass; use of light fittings that direct and confine the spread

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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.

Project Alternatives Analysis: CDFW recommends that the information and results obtained from the biological technical surveys, studies, and analyses conducted in support of the Project's DEIR be used to develop and modify the Project's alternatives to avoid and minimize impacts to biological resources to the maximum extent possible. When efforts to avoid and minimize have been exhausted, remaining impacts to sensitive biological resources may need to be mitigated to reduce impacts to a less than significant level, if feasible.

ENVIRONMENTAL DATA

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

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).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP to assist the County in identifying and mitigating Project impacts on biological resources. Please see the enclosed Mitigation Monitoring and Reporting Program (MMRP) table (Attachment 1) which corresponds with the recommended mitigation measures in this comment letter. If you have any questions, please contact Ren Cotter, Environmental Scientist, at the

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address provided on this letterhead, by telephone at (559) 767-0956, or by electronic mail at Ren.Cotter@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie Vance
FA83F09FE08945A...

Julie A. Vance
Regional Manager

Attachment (MMRP)

ec: State Clearinghouse
Land Use and Climate Innovation
state.clearinghouse@lci.ca.gov

Ren Cotter
California Department of Fish and Wildlife

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REFERENCES

California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. Sacramento, California, USA.

California Department of Fish and Wildlife (CDFW). 2016. Five year status review for Swainson's Hawk (*Buteo swainsoni*). Sacramento, California, USA.

California Department of Fish and Wildlife. 2018a. California wildlife habitat relationship system, desert tortoise. Sacramento, California, USA.

California Department of Fish and Wildlife. 2018b. Protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities. Sacramento, California, USA.

California Department of Fish and Wildlife. 2023a. Mohave Ground Squirrel Survey Guidelines. California Department of Fish and Wildlife, Sacramento, California, USA.

California Department of Fish and Wildlife. 2023b. Survey considerations for California Endangered Species Act candidate bumble bee species. Sacramento, California, USA.

California Department of Fish and Wildlife. 2025. Biogeographic information and observation system (BIOS). https://www.wildlife.ca.gov/Data/BIOS. Accessed 06 August 2025.

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.

Cypher, E. 2011. Taxonomy and identification of Bakersfield cactus: A review of pertinent literature with recommendations. California Department of Fish and Game, Central Region, Fresno, California, USA.

Gustafson, J. 1993. Report to the Fish and Game Commission: A Status Review of the Mohave Ground Squirrel (*Spermophilus mohavensis*). California Department of Fish and Game, Sacramento, California.

Longcore, T. and C. Rich. 2004. Ecological light pollution - Review. Frontiers in Ecology and the Environment, 2:191–198.

McGrew. 1979. *Vulpes macrotis*. Mammalian Species 123:1-6.

Docusign Envelope ID: D8CF7495-A5CC-4779-852C-545C75BCBFAC

Miller, M. 2006. Apparent effects of light pollution on singing behavior of American robins. The Condor, 108:130–139.

Mylenbusch, I., K. Claffey, and B.Chu. Hazards of lithium-ion battery energy storage systems (BESS), mitigation strateies, minimum requirements, and best practices. Process Safety Progress, 2023:1–10.

Nightingale, B., T. Longcore, and C. Simenstad. 2006. Artificial night lighting and fishes. Pages 257–276 *in* C. Rich and T. Longcore, editors. Ecological consequences of artificial light at night. Island Press, Washington, D.C., USA.

Pagel, J., D. Whittington, and G. Allen. 2010. Interim golden eagle inventory and monitoring protocols; and other recommendations. Division of Migratory Bird Management, U.S. Fish and Wildlife Service, USA.

Perry, G. Buchanan, R. Fisher, M. Salmon, and S. Wise. 2008. Effects of night lighting on urban reptiles and amphibians. Chapter 16 in: Urban Herpetology: Ecology, Conservation and Management of Amphibians and Reptiles in Urban and Suburban Environments. J. C. Mitchell, R. E. Jung Brown and B. Bartholomew (ed.). Herpetological Conservation, 3:211-228.

Rancho Santa Ana Botanic Garden. 2017. Genomic sequencing to develop a single nucleotide polymorphism assay of the endangered Bakersfield cactus. National Fish and Wildlife Foundation, Washington, D.C., USA.

Smith, P., 2013. Genetic partitioning within the metapopulation of endangered Bakersfield cactus (*Opuntia basilaris var. treleasei*): Implications for translocation efforts. Final report, California State University, Bakersfield, California.

Stone, E., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. Current Biology, 19:1123–1127.

United States Fish and Wildlife Service. 2019. Preparing for any action that may occur within the range of the Mojave desert tortoise *(Gopherus agassizii)*. United States Fish and Wildlife Service, Sacramento, California, USA.

Xerces Society for Invertebrate Conservation (Xerces Society), Defenders of Wildlife, and Center for Food Safety. 2018. A petition to the state of California fish and game commission to list the Crotch's bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act. October 2018.

Docusign Envelope ID: D8CF7495-A5CC-4779-852C-545C75BCBFAC

Zeiner, D., W. Laudenslayer, Jr, K. Mayer, and M. White. 1990. California's Wildlife Volume I-III. California Department of Fish and Game, editor. Sacramento, CA, USA.

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Attachment 1

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

PROJECT: Discovery Solar PV and Storage Project by Discovery Solar PV and Storage, LLC

SCH No.: 2025071048

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
SWHA	
Recommended Mitigation Measure 1: SWHA Surveys Prior to Construction	
Recommended Mitigation Measure 3: SWHA Take Authorization	
Recommended Mitigation Measure 4: SWHA foraging habitat mitigation	
BUOW	
Recommended Mitigation Measure 5: BUOW Surveys Prior to Construction	
Recommended Mitigation Measure 7: BUOW Take Authorization	
CBB	
Recommended Mitigation Measure 8: CBB Surveys Prior to Construction	
Recommended Mitigation Measure 10: CBB Take Authorization	
WJT	
Recommended Mitigation Measure 11: WJT Take Authorization	
During Construction	
SWHA	
Recommended Mitigation Measure 2: SWHA Avoidance Buffer	
BUOW	
Recommended Mitigation Measure 6: BUOW Avoidance Buffer	
CBB	
Recommended Mitigation Measure 9: CBB Avoidance	

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September 2, 2025

Mark Tolentino, Planner III
Kern County
Planning and Natural Resources Department
2700 M Street, Suite 100
Bakersfield, CA 933301

Delivered via email to TolentinoM@kerncounty.com

Re: Notice of Preparation of a Draft Environmental Impact Report – Discovery Solar PV and Storage Project (2025071048)

Dear Mr. Tolentino,

Thank you for the opportunity to provide comments in response to the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the proposed Discovery Solar PV and Storage Project (Project). These comments are submitted on behalf of Defenders of Wildlife (Defenders), California Native Plant Society (CNPS) and Center for Biological Diversity (Center).

Defenders has 2.1 million members and supporters in the United States, 310,000 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.

CNPS is a non-profit environmental organization with over 13,000 members in 35 Chapters across California and Baja California, Mexico. CNPS's mission is to protect California's native plants and their natural habitats, today and into the future, through science, education, stewardship, gardening, and advocacy. We work closely with decision-makers, scientists, and local planners to advocate for well-informed policies, regulations, and land management practices.

The Center is an international non-profit conservation organization with over 1.7 members and supporters dedicated to the protection of biodiversity and ecosystems throughout the world. The Center works through science, law, and creative media to secure a future for all species, great and small, hovering on the brink of extinction, with a focus on protecting the lands, waters and climate that species need to survive.

We collectively support renewable energy generation. A low-carbon energy future is critical for California's economy, communities and environment. Achieving this future—and how we achieve it—is critical for protecting California's internationally treasured wildlife, landscapes, and diverse habitats. We believe transitioning to a renewable energy future need not exacerbate the ongoing extinction crisis by thoughtfully planning projects while protecting habitats critical to species.

The proposed Project is a solar photovoltaic facility that would generate up to 1,400 MW of renewable energy and includes an estimated 1,000 MW of energy storage capacity. The proposed Project would be sited on 7,700 acres, across 473 privately owned parcels in unincorporated Kern County; specifically, the Project is located at the western edge of the Antelope Valley (AV). An additional 411 acres on six parcels are allotted for a medium-voltage transmission and access easement. Surrounding land uses include renewable energy projects, rural residential areas, livestock grazing, light and heavy industrial and mining operations, undeveloped desert lands and Bureau of Land Management lands immediately west of the project site. The California High-Speed Rail Authority's Bakersfield to Palmdale segment, approved in a joint California Environmental Quality Act (CEQA)/National Environmental Policy Act document in 2021, crosses portions of the project site. This overlap may require panel reconfiguration to meet necessary setbacks.

Comments

We offer the following comments on the scope of the DEIR for the proposed Project.

1. **Protocol-Level Surveys**

   The proposed Project site contains sensitive, high-value biological resources and provides important habitat to numerous special-status wildlife species, including several special status plant occurrences that are immediately adjacent to the Project site, including but not limited to the following:[1]

Common Name	Scientific Name	Status
Alkali mariposa lily	*Calochortus striatus*	California Rare Plant Rank (CRPR) 1B.2
Burrowing owl	*Athene cunicularia*	State Species of Special Concern and Candidate Species for State Endangered or Threatened
California condor	*Gymnogyps californianus*	Federal Endangered, State Endangered and State Fully Protected Species

[1] California Natural Diversity Database. Accessed 8/14/2025. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data

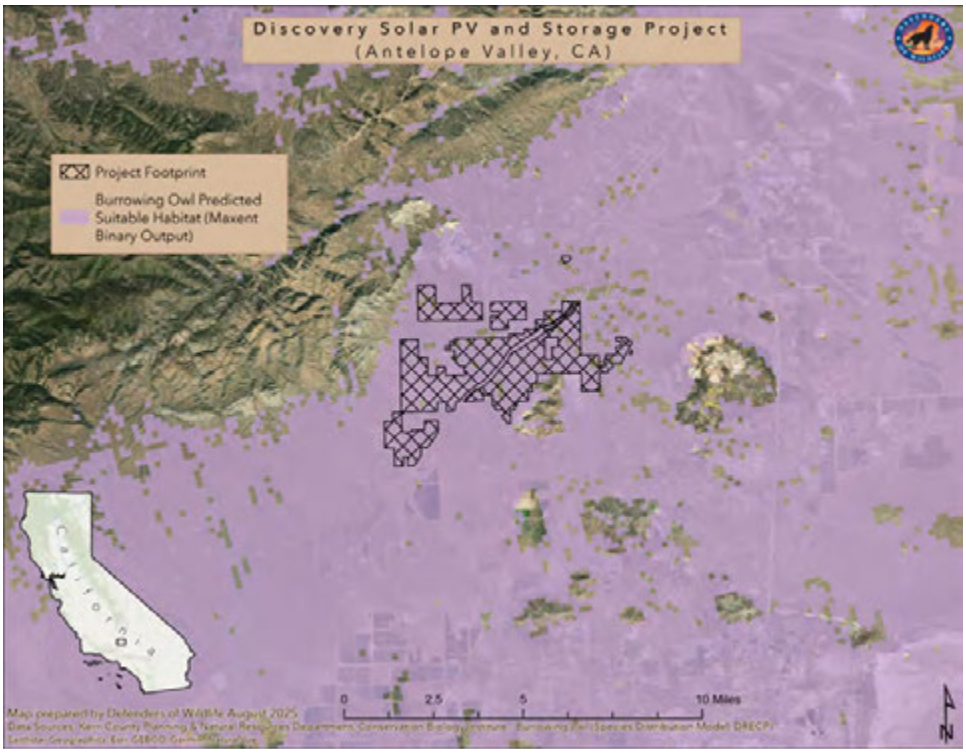
Crotch's bumble bee	*Bombus crotchii*	Candidate Species for State Endangered
Horn's milk-vetch	*Astragalus hornii* var. *hornii*	CRPR 1B.1
Loggerhead shrike	*Lanius ludovicianus*	State Species of Special Concern
Pale-yellow layia	*Layia heterotricha*	CRPR 1B.1
Tehachapi monardella	*Monardella linoides* ssp. oblonga	CRPR 1B.3
Tracy's eriastrum	*Eristrum tracii*	State Rare
Recurved delphinium	*Delphinium recurvatum*	CRPR 1B.2
Southern-Sierra monardella	*Monardella linoides* ssp. *anemonoides*	CRPR 1B.3
Swainson's hawk	*Buteo swainsoni*	State Threatened
Western Joshua tree	*Yucca brevifolia*	Candidate Species for State Threatened

Biological resources surveys conducted for the DEIR must adhere to wildlife agency-approved species-specific protocols and must identify the appropriate avoidance, minimization and mitigation measures based on survey results. We recommend consultation with the responsible trustee and wildlife agencies to determine the scope and appropriate protocols for the biological surveys. Species-specific surveys should cover 100 percent of the Project area and adjacent habitat within wildlife agency-recommended survey buffers and must be conducted **prior to** the development of the DEIR and associated avoidance, minimization and mitigation measures. If special-status species are observed, we recommend consultation with the California Department of Fish and Wildlife (CDFW) and the US Fish and Wildlife Service to establish the recommended impact avoidance, minimization and mitigation measures, including compensatory mitigation and the need to obtain an Incidental Take Permit.

If habitat management lands are deemed necessary due to survey results, such 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.

a. Burrowing Owl

Burrowing owl (BUOW) is a candidate species for protection under the California Endangered Species Act (CESA). As a candidate for listing, the species is afforded the same protections as a state-listed endangered or threatened species. The Project is located within predicted suitable habitat for BUOW, as depicted below.



Protocol-level surveys for BUOW must conform to the current survey standard established in the *Burrowing Owl Survey Protocol*[2] and the *Staff Report on Burrowing Owl Mitigation*.[3]

If BUOW are observed during protocol-level surveys and CDFW-recommended buffers and avoidance measures are not feasible, we note that CDFW does not consider passive relocation as a take avoidance, minimization or mitigation method and considers it a potentially significant impact under the CEQA.[4]

b. Crotch's Bumble Bee

Crotch's Bumble Bee (CBB) is a candidate species for listing under CESA, and such, must be accorded protection as if they were listed. The Project is located within the current range[5] of the species and, therefore, CBB may occur on-site. We request CBB surveys be conducted in accordance with

[2] California Burrowing Owl Consortium. 1993. *Burrowing Owl Survey Protocol and Mitigation Guidelines*.
[3] California Department of Fish and Game. 2012. *Staff Report on Burrowing Owl Mitigation*.
[4] California Department of Fish and Wildlife. 2023. *Zeta Solar Generation and Battery Energy Storage System Project Notice of Preparation (NOP) State Clearinghouse No. 2023070088*.
[5] California Department of Fish and Wildlife. 2023. *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*.

CDFW's methods as outlined in *Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species*.

c. Nesting Birds

The Project site is within the known geographic range of several nesting birds, including loggerhead shrike. We recommend consultation with CDFW for the appropriate survey methods and timing for avian surveys.

d. Swainson's Hawk

Swanson's hawk (SWHA) is listed as threatened under CESA and a review of California Natural Diversity Database (CNDDB) indicated multiple SWHA occurrences nearby. We recommend that protocol-level surveys for the species be conducted that, at a minimum, conform to CDFW and the California Energy Commission's survey guidelines.[6] If the species is observed on or adjacent to the Project site based on the survey, the DEIR must include avoidance, minimization and mitigation measures developed in consultation with CDFW.

e. Special-Status Plants

Botanical surveys of the project area should be floristic in nature, documenting all plant species and vegetation types present on the project site, and adhere to the 2021 update to the 2018 CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (Protocols). The project is located within the Monolith, Willow Springs and Soledad Mountain U.S. Geological Survey 7.5-minute quadrangles. A desktop review to identify special status species with the potential to occur on the project site should query CNDDB and CNPS Rare Plant Inventory (RPI) for the quads occupied by the project and all adjacent quads: Tehachapi North, Tehachapi NE, Cache Peak, Mojave, Sanborn, Bissell, Rosamond Lake, Rosamond, Little Buttes, Fairmont Butte, Tylerhorse Canyon and Tehachapi South. Additional resources such as the Calflora database and iNaturalist are useful tools to supplement the results of CNDDB and CNPS RPI searches. The results of these queries will offer some guidance for the timing and number of surveys needed to accurately capture the botanical diversity of the project site and reference sites needed to ensure that target species would be present and identifiable. In desert and grassland ecosystems many annual and herbaceous perennial species may only be present in years with sufficient appropriately timed precipitation to support germination, growth and/or flowering making the use of reference sites

[6] 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*.

especially important for the proposed project. If reference site checks do not show that target species would be identifiable during survey efforts then presences should be assumed in all suitable habitats. Surveys must be floristic in nature as there is potential for additional special status species not identified during desktop reviews or undescribed species to be encountered during survey efforts. The CDFW Protocols offer guidance for conducting surveys and reporting survey results, in particular these efforts should include:

- The names and qualifications of the surveyors;
- The dates and locations of surveys, names of surveyors on each date and person hours spent on each date;
- A description of the reference sites used, dates visited and the phenology of target plants at reference sites;
- A description and map of the area surveyed relative to the project area;
- A comprehensive list of all species encountered during surveys, identified to the taxonomic level needed to determine the status of the species;
- A discussion of how climatic conditions may have affected survey results;
- A discussion of how the timing of surveys may have affected survey results;
- A discussion of the potential for a false negative survey;
- A discussion of the significance of special-status plant populations in the project area, considering nearby populations and total range and distribution;
- A discussion of the significance of sensitive natural communities in the project area, considering nearby occurrences and natural community distribution;
- A discussion of project-related direct, indirect and cumulative impacts to special-status plants and sensitive natural communities;
- A discussion of the degree and immediacy of all threats to special-status plants and sensitive natural communities, including those from invasive species; and
- A discussion of the degree of impact, if any, of the project on unoccupied, potential habitat for special-status plants.

2. **Areas of Conservation Emphasis Rankings**

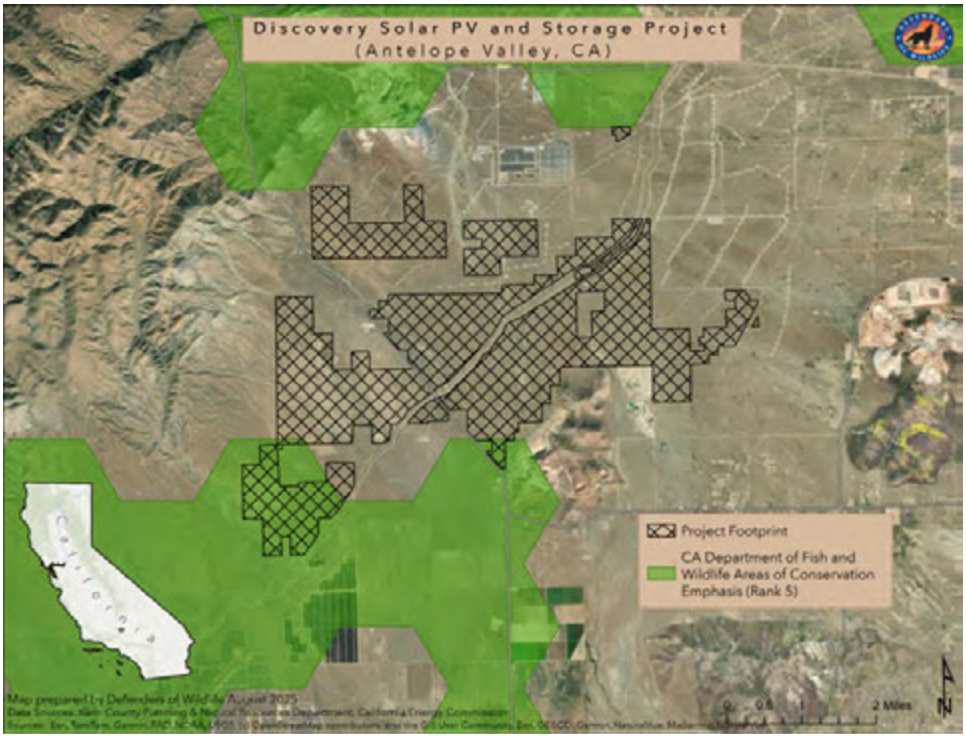
Areas of Conservation Emphasis (ACE) is a statewide conservation analysis and mapping tool developed by CDFW to identify conservation value of lands across California. ACE compiles data on species diversity, rarity, sensitive habitats, landscape connectivity, climate resilience and other categories to generate

rankings. ACE assigns rankings from 1 (lowest) to 5 (highest) within different conservation categories, with Rankings 4 and 5 representing areas of particularly high ecological importance. Development within ACE 4 or 5 areas risks impacting sensitive species and habitats; therefore, projects sited within ACE 4 or 5 areas should be avoided, and conservation of these areas should be prioritized.

The California Energy Commission utilized the ACE connectivity data as a part of the biological planning priorities in the 2023 Land-Use Screens for Electric System Planning, a process to revise the land-use screens utilized in state electricity planning processes.[7] Specifically, Ranks 4 and 5 are used as an exclusion for statewide solar and onshore wind resource potential estimates to avoid lands with high conservation or connectivity value.

a. Connectivity

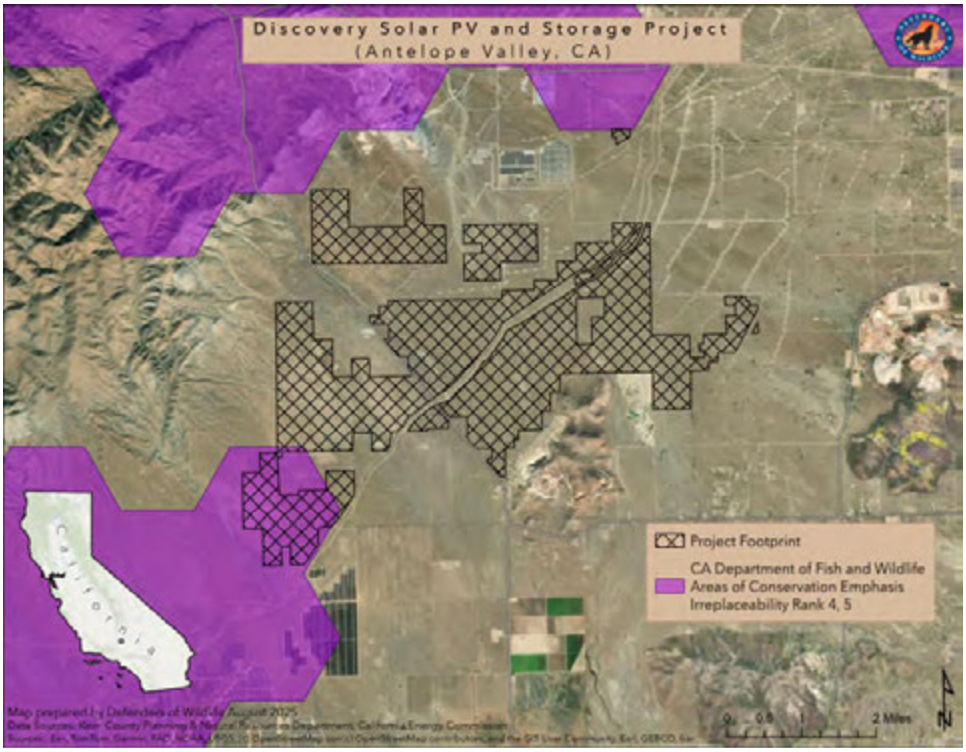
Connectivity is one of the main outputs of ACE, which examines how an area contributes to animal movement and general ecological flow. ACE Connectivity Rankings of 4 and 5 are the highest scores and are comprised of essential corridors and linkages. The Project contains portions that are located in an area with a 5 ACE Connectivity Ranking and, therefore, should be avoided for solar development. We request the DEIR include and analyze alternative locations outside areas with a 4 or 5 ACE Connectivity Ranking.



[7] See https://experience.arcgis.com/experience/de6ab11146bf47068ff294d87780ce00.

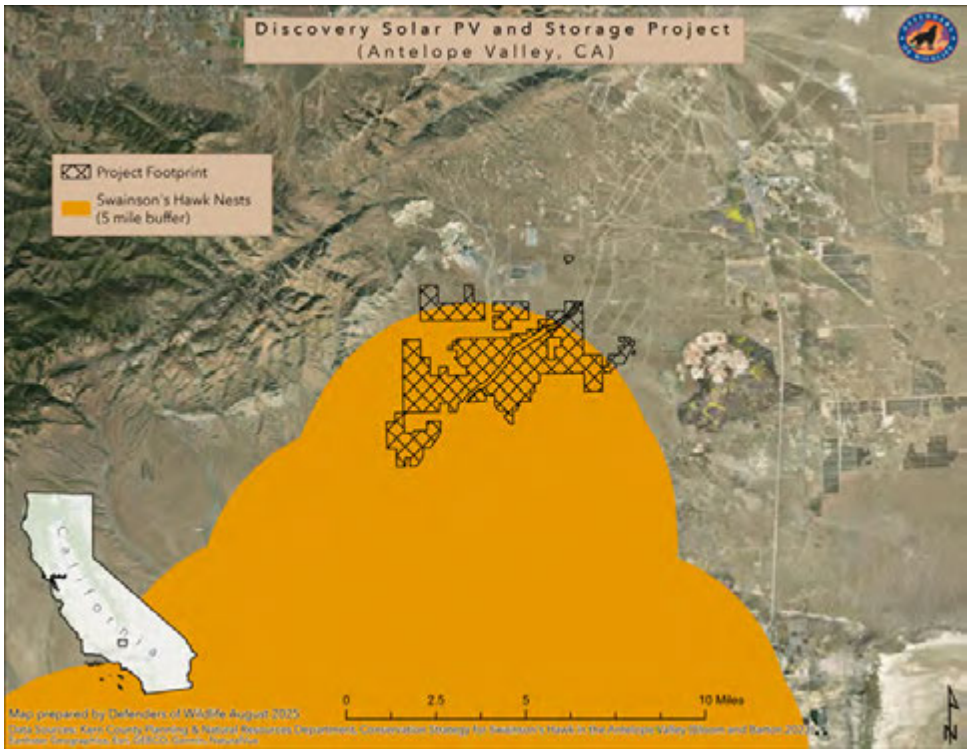
b. Irreplaceability

The ACE terrestrial irreplaceability ranking measures the importance of an area based on the number of California endemic special-status species found and the degree of their distribution so that lands with species that are more geographically constrained produce a higher score. Portions of the Project site are located in an area with a 5 ACE Irreplaceability Ranking and, therefore, should be avoided for solar development. We request the DEIR include and analyze alternative locations outside areas with a 4 or 5 ACE Irreplaceability Ranking.



3. Swainson's Hawk Foraging Habitat

The Project is located within a 5-mile buffer of known SWHA nests, as depicted below. Development within this buffer has the potential to significantly reduce foraging habitat, increase disturbance and affect nesting success. The DEIR must assess potential direct and indirect impacts to SWHA foraging and nesting within the 5-mile buffer and require mitigation that ensures no net loss of functional foraging habitat.



4. **Special-Status Species Plans**
   If the DEIR requires the preparation of any plans related to the avoidance, minimization, mitigation or translocation of special-status species, those plans must be included in the DEIR itself so that they are available for public review and comment during the DEIR comment period. Simply requiring the plans to be developed within the DEIR and not including the plans themselves prevents the public and decision makers from understanding how potential impacts will be addressed and providing thoughtful feedback that can then be incorporated into the plans within the Final EIR.

5. **Special Status Plants and Sensitive Natural Communities Mitigation**
   Mitigation measures for special status plants and sensitive natural communities should be developed prior to project approval for each species/natural community with the potential to be impacted by project activities, and should include the following recommendations:

   - Pre-construction surveys should follow CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities, and should occur when target species would be identifiable as determined by reference site checks; multiple surveys may be needed to capture all species with the potential to occur. If reference site

checks do not show that target species are present or identifiable then all suitable habitat should be presumed to be occupied.

- Avoidance of any special status individuals or sensitive natural communities should be prioritized over any form of compensatory mitigation, including reducing the project footprint to preserve botanical resources where reductions would allow the project to meet the majority of its objectives.
- Species/natural community specific mitigation plans should be developed for all special status plants and sensitive natural communities with the potential to be impacted, including detailed criteria for determining the success of compensatory mitigation.
- Any attempts to reintroduce, transplant or translocate impacted species should use locally sourced genetically appropriate material collected from impacted populations.
- In addition to collections for initial mitigation attempts, a portion of collected seed of impacted species should be banked to ensure that there is an appropriate seed source to bulk seed for future mitigation efforts in the event that initial attempts are unsuccessful, and to preserve the genetics of the impacted population in perpetuity.
- 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 mitigation 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.
- 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.
- If monitoring shows stable populations after three years with no maintenance the populations should be monitored every two years throughout the life of the project.
- 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/success standards, 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. **Cumulative Impacts**

The ever-increasing large-scale renewable energy footprint in the proposed Project vicinity and within the AV is significantly impacting biological resources in the region. This proposed Project is not an exception and would significantly contribute to the cumulative loss of the AV's important and declining biological resources.

Despite this ongoing renewable energy development, adequate cumulative impacts analysis is consistently absent from EIRs for projects within Kern County. Kern County has failed to provide adequate cumulative impacts analysis and therefore failed to prevent negative cumulative impacts. We request that the DEIR comprehensively analyze the direct and indirect cumulative impacts of past, present and reasonably foreseeable activities that adversely impact biological resources within the AV. These reasonably foreseeable development projects should not be limited to clean energy development exclusively but encompass all types of development. This analysis must include, but not be limited to, the cumulative impacts on special-status species such as BUOW, Joshua tree and SWHA. The analysis must also include the cumulative impacts to wildlife connectivity and provide mitigation measures where impacts are not unavoidable or cannot be minimized. We recommend coordination with CDFW for the methods of analyzing the cumulative impacts.

a. **California Condor**

The project is proposed to cover 7,700 acres of lands that lie well within the range of the California condor[8], a critically endangered species that is protected under both the ESA and CESA. Through great effort, time and resources, these iconic birds have been brought back from the brink of extinction. The DEIR must include an analysis of impacts to foraging habitat for California condors not only in the proposed project itself, but also in the cumulative impacts from the numerous projects proposed in the Antelope Valley. While the southern California condor flock's population is increasing due to releases and wild fledging and mortalities decreased to four in 2024[9], retaining adequate habitat is extremely important for California condor recovery because the birds need vast, remote areas with specific features for foraging, roosting and nesting, including open grasslands and foothills for finding food, and trees and cliffs for roosting. Habitat loss from urban development and other threats including renewable energy development directly impacts condors by reducing food sources and other critical habitat resources.

[8] See https://www.fws.gov/species/california-condor-gymnogyps-californianus

[9] See https://www.fws.gov/sites/default/files/documents/2025-03/2024-california-condor-population-status508-compliant_js_0.pdf

b. Swainson's Hawk

The extensive habitat conversion due to utility-scale solar development within the AV has resulted in widespread loss and fragmentation of lands that have historically supported SWHA nesting and foraging. The proposed Discovery Project not only represents an additional loss of habitat within this already significantly impacted region, but as an extremely large project spanning 7,700 acres, it threatens to remove a substantial area of potential SWHA habitat.

The AV is a critical region for SWHA because it lies at the southernmost end of the species' California breeding range and serves as the core nesting population within the Mojave Desert.[10] We are already witnessing the impacts of the loss of habitat and the corresponding threat to the survival of SWHA in the region; in 2021, 14 nesting pairs were observed within the AV population of the species, and only three successfully fledged young.[11] According to Defenders' analysis, renewable energy development and insufficient compensatory mitigation to address SWHA habitat loss have resulted in the loss of almost 14,000 acres of foraging habitat within 5 miles of active nest sites. Meanwhile, compensatory mitigation for the loss of foraging habitat from 2010 to 2023 totaled only 5,717 acres, which is negligible compared to the acres of habitat lost. Despite the continued loss of habitat and the failure to provide compensatory mitigation, solar projects continue to be proposed and approved within the Kern County portion of the AV.

One of the legislative intents behind the CEQA is to "regulate activities of private individuals, corporations, and public agencies which are found to affect the quality of the environment, [and] regulate such activities so that major consideration is given to preventing environmental damage, while providing a decent home and satisfying living environment for every Californian."[12] The AV appears to be at the threshold of losing the ability to support a healthy and robust population of SWHA with the amount of solar development that is occurring.

Given the extensive conversion of SWHA habitat within the AV from large-scale solar development, and the documented impacts on nesting and foraging impacts, any further loss of habitat in this region risks pushing the population beyond a sustainable threshold. As cumulative impacts continue

[10] Bloom, Peter H., et al. 2023. Swainson's Hawk Nesting Population in the Antelope Valley of the Western Mojave Desert, California.
[11] Ibid.
[12] CA Pub Res Code § 21000 (2022).

to threaten the already diminished southern population, additional projects, such as the Discovery Solar Project, must be carefully analyzed to ensure that further development does not exacerbate the ongoing species' decline. Furthermore, we request that the analysis include a detailed map of existing and planned solar energy development with the remaining nesting and foraging habitat for Swainson's hawk.

7. **Alternative Analysis**
   The DEIR should include a robust analysis of alternatives that would avoid the development of relatively intact habitat through the study of previously disturbed project sites that do not serve as habitat for special-status species. Furthermore, we urge the County to pursue front of the meter distributed solar generation (e.g., utility-scale rooftop and parking lot solar at commercial and industrial sites such as warehouses, processing facilities and solar-covered aqueducts) that serves the local distribution system and will become an integral part of the energy supply serving the local community in the Antelope Valley.

Conclusion

Thank you once again for the opportunity to provide scoping comments on the proposed Discovery Solar PV and Storage Project and for considering our comments. We look forward to reviewing the DEIR for the Project and request to be notified when it is available. Please feel free to contact us with any questions.

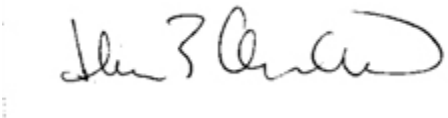
Respectfully submitted,



Sophia Markowska
Senior California Representative
Defenders of Wildlife
SMarkowska@defenders.org



Brendan Wilce
Conservation Program Coordinator
California Native Plant Society
BWilce@cnps.org



Ileene Anderson
Senior Scientist
Center for Biological Diversity
IAnderson@biologicaldiversity.org

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Mark Tolentino

From: branden michael <michaelbranden@hotmail.com>
Sent: Tuesday, September 2, 2025 8:02 AM
To: Mark Tolentino
Cc: Nicole Menchaca
Subject: Attn: Mark, Re: Terragen solar and battery project, in proximity to: parcel # 474-160-22-00

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.

Good morning Mark and Nicole,

I had a chance to briefly review the list of parcels submitted by Tarragen representative(s) for Solar and Battery Storage development in Rosamond, Kern, CA.

I noticed proximity of seven (7) parcels under review is very close to my property. Map shows few parcels are located less than 500 feet to my property.

In the event Tarragen is granted full permit approval to implement their project, it would certainly affect type of use and overall value of my property.

There are many reasons why my property use and value would be affected negatively if Tarragen permit(s) are approved. Below see list of few:

Tarregan solar project would dominate the landscape by changing natural scenery of nearby area to industrial and blocking my property views.

Battery storage unit(s) can be hazardous and do create noise pollution. Solar panels can also raise the air temperature of surrounding area.

There are also other harmful environmental impacts to indigenous wildlife and plant life, including protected wildlife and plant species.

Initially I purchased this property to build a home and possibly cultivate organic vegetables to sell to local community and restaurants.

This massive development would hinder and prohibit my plans for optimum use of my land and quiet enjoyment of it permanently.

Granting permit(s) to Tarragan to develop their massive Solar and Battery project, would also cause me financial loss for certain.

Kindly find a solution to avert me irreplaceable harm and financial loss and provide me with your thoughts and solution.

This email shall serve as my written response to letter I received regarding: Tarragan (PP24408), dated: July 31, 2025.

Kindly reply to confirm you have received this email today sent on: dated September 2, 2025.

Regards,
Michael Branden
(310) 710-8488

From: Mark Tolentino <TolentinoM@kerncounty.com>
Sent: Friday, August 22, 2025 12:23 PM
To: branden michael <michaelbranden@hotmail.com>
Subject: RE: Attn: Mark, Re: Terragen solar and battery project, in proximity to: parcel # 474-160-22-00 (third email)

Good afternoon,

Please find attached copies of the Scoping Meeting Agenda and Summary.

Thank you and have a great weekend,

Mark Tolentino
Planner III
Kern County Planning and Natural Resources Department
P: 661-862-5041 E: TolentinoM@kerncounty.com
~ Kern County ~ Rooted in Resources ~
LinkedIn profile

From: branden michael <michaelbranden@hotmail.com>
Sent: Friday, August 22, 2025 7:36 AM
To: Mark Tolentino <TolentinoM@kerncounty.com>
Subject: Attn: Mark, Re: Terragen solar and battery project, in proximity to: parcel # 474-160-22-00 (third email)

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.

Good morning Mark,

Thank you for your response. Let me know if you have the minutes from yesterday's August 21, 2025, at1:30 pm, meeting?

If so, kindly email it to me.

Regards,

From: Mark Tolentino <TolentinoM@kerncounty.com>
Sent: Thursday, August 21, 2025 4:30 PM
To: branden michael <michaelbranden@hotmail.com>
Cc: Nicole Menchaca <HuiskenN@kerncounty.com>
Subject: RE: Attn: Mark, Re: Terragen solar and battery project, in proximity to: parcel # 474-160-22-00 (third email)

Good afternoon Michael,

We appreciate your patience as we've been responding to many comments regarding this project since we last communicated.

As provided in the NOP letter, the more detailed project description within the NOP can be found at the following link: https://kernplanning.com/planning/environmental-documents/

More specifically, the NOP can be found here, and it contains a chart with all proposed project parcels beginning on page 5 of the document.

The applicant informed us at the Scoping Meeting that they will be reaching out to you again to discuss your inquiries. As a reminder, this Department, as Lead Agency, **does not** engage in coordination between property owners and project applicants regarding land transactions.

Be reminded, this NOP is the first step of the entire CEQA/Environmental Review and public hearing notification process, so you can expect to receive more notices by mail as the project progresses. Specific dates for when those future notices are mailed to you is not known at this time.

I hope this information is useful to you.

Have a good rest of your day.

Mark Tolentino
Planner III
Kern County Planning and Natural Resources Department
P: 661-862-5041 E: TolentinoM@kerncounty.com
~ Kern County ~ Rooted in Resources ~
LinkedIn profile

From: branden michael <michaelbranden@hotmail.com>
Sent: Thursday, August 21, 2025 8:30 AM
To: Mark Tolentino <TolentinoM@kerncounty.com>

Cc: Nicole Menchaca <HuiskenN@kerncounty.com>
Subject: Attn: Mark, Re: Terragen solar and battery project, in proximity to: parcel # 474-160-22-00 (third email)

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.

Good morning Mark,

During the past week, I called and also sent you emails asking for list of parcels acquired by Terragen, submitted to Kern County Planning Department for solar development, that might be located in close proximity to my land. Since then, I have not received the list containing selected vacant-land parcel numbers.

Due to your lack of response in providing the information I requested in advance, my plans to participate in the meeting held today, August 21, 2025, at 1:30 pm, will not be feasible.

I understand there is a set deadline for recipients to turn-in their comments concerning the project on or by; September 2, 2025. In order to do so, I require list of parcel numbers.

After you provide the information, I would like additional time to prepare my comments. If you cannot provide the information I have requested, please let me know who can?

This email correspondence shall serve as notice in response to registered letter dated: July 31, 2025, received by Clerk, on: August 4th, 2025, regarding Terragen solar project.

Kindly reply to confirm you have received this email. Thank you in advance!

Regards,
Michael

A copy of this email is also sent to Nicole Menchaca.

From: branden michael <michaelbranden@hotmail.com>
Sent: Monday, August 18, 2025 4:01 PM
To: Mark Tolentino <TolentinoM@kerncounty.com>
Subject: Attn: Mark, Re: parcel # 474-160-22-00

Good afternoon Mark,

Let me know if you received my email dated; August 15, 2025?

If not, scroll down to see another copy of email sent.

Regards,
Michael

From: branden michael <michaelbranden@hotmail.com>
Sent: Friday, August 15, 2025 5:25 PM
To: Mark Tolentino <TolentinoM@kerncounty.com>
Subject: Attn: Mark, Re: parcel # 474-160-22-00

Good afternoon Mark,

Thank you for forwarding my contact information to Michelle Leffler from Terragen. I appreciate it. I will contact her next week.

Kindly provide me with list of parcel numbers proposed by Terragen, that are in-close proximity to parcel # 474-160-22-00-5.

I would like to review the list of parcels proposed by Terragen, for development of PV prior to talking with Michelle Leffler.

Have a great weekend!

Michael

From: branden michael <michaelbranden@hotmail.com>
Sent: Friday, August 15, 2025 9:22 AM
To: Mark Tolentino <TolentinoM@kerncounty.com>
Subject: Attn: Mark, Re: (Terragen Solar PV and Storage PP24408)

Good morning Mark,

The general contact information you provided me was not helpful. No one responded to my inquiry.

Kindly provide me with direct contact information of person in-charge of the project at Terragen.

As of this point, I have not received list of parcel numbers submitted for Terragen project.

Reply to confirm you have received this email.

Regards,
Michael Branden

From: Mark Tolentino <TolentinoM@kerncounty.com>
Sent: Wednesday, August 13, 2025 11:49 AM
To: branden michael <michaelbranden@hotmail.com>
Cc: Nicole Menchaca <HuiskenN@kerncounty.com>
Subject: RE: Attn: Huisken, Re: (Terragen Solar PV and Storage PP24408), (second item)

Thank you for reaching out to us and taking time to discuss the Notice of Preparation for the Discovery PV Solar and Storage Project. As discussed on our call, this will be the first of a series of notifications we'll

send to you by mail as the proposed project continues through the California Environmental Quality Act (CEQA) and Public Hearing processes.
Please find the attached maps highlighting the subject property (blue) relative to the project. I'll pass your contact information along to the applicant team so they can contact you directly, however feel free to visit their company website for any general inquiries you might have.
https://terra-gen.com/contact-us/
As we also discussed, your property appears to have been at one point been in the project boundary for the Catalina Renewable Energy Project, however given that it has not been developed with either Wind or Solar facilities, the overall development may have changed since original analysis performed in the 2011 EIR. At this time, your property appears to be zoned A FP (Exclusive Agriculture – Floodplain Primary Combining). Please visit the Zoning Ordinance and see chapter 19.12 and 19.50 to see a list of permitted/conditionally permitted uses.

For any additional questions or concerns, don't hesitate to reach out.

Mark Tolentino
Planner III
Kern County Planning and Natural Resources Department
P: 661-862-5041 E: TolentinoM@kerncounty.com
~ Kern County ~ Rooted in Resources ~

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

Mitchell M. Tsai
Law Firm

139 S. Hudson Ave., Suite 200
Pasadena, California 91101

VIA E-MAIL

September 2, 2025

Kern County Planning and Natural
Resources Department
Attn: Mark Tolentino, Planner III
2700 "M" Street, Suite 100
Bakersfield, CA 93301
Ph: (661)862-5041
Em: TolentinoM@kerncounty.com

RE: Notice of Preparation for the County of Kern's Discovery Solar PV and Storage Project

Dear Mr. Tolentino,

On behalf of the Western States Regional Council of Carpenters ("**Western Carpenters**" or "**WSRCC**"), our Office is submitting these comments for the County of Kern's ("**County**") Notice of Preparation of a Draft Environmental Impact Report for the Discovery Solar PV and Storage Project ("**Project**").

The Western States Regional Council of Carpenters is a labor union representing almost 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.

The proposed Discovery Solar PV and Storage Project is a photovoltaic (PV) solar facility with associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours (GWh) of energy storage capacity (approximately 1,000 MW) on an approximate 7,700 acre project site, across 473 privately owned parcels, in an unincorporated area of southeastern Kern County. The applicant is seeking Zone Changes, Conditional Use Permits, a General Plan Amendment, and Zone Variance changes as part of the project's entitlements.

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, 1199-1203; see also *Galante Vineyards v. Monterey Water Dist.* (1997) 60 Cal.App.4th 1109, 1121.

Moreover, the Western Carpenters requests that the County provide notice for any and all notices referring or related to the Project issued under the California Environmental Quality Act (**CEQA**) (Pub. Res. Code, § 21000 *et seq.*), and the California Planning and Zoning Law ("**Planning and Zoning Law**") (Gov. Code, §§ 65000–65010). California Public Resources Code Sections 21092.2, and 21167(f) and California Government Code Section 65092 require agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body.

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:

> [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:

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

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

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

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

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

> communities and their vehicle trips would be shorter. Benefits would include potential reductions in both vehicle miles traveled and vehicle hours traveled.[3]

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

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.

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

[4] Cervero, Robert and Duncan, Michael (2006) Which Reduces Vehicle Travel More: Jobs-Housing Balance or Retail-Housing Mixing? Journal of the American Planning Association 72 (4), 475-490, 482, *available at* http://reconnectingamerica.org/assets/Uploads/UTCT-825.pdf.

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

Construction work has been defined as a Lower to High-risk activity for COVID-19 spread by the Occupations Safety and Health Administration. Recently, several construction sites have been identified as sources of community spread of COVID-19.[5]

Western Carpenters recommend that the Lead Agency adopt additional requirements to mitigate public health risks from the Project's construction activities. Western Carpenters requests that the Lead Agency 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 Western Carpenters' experience with safe construction site work practices, Western Carpenters recommends that the Lead Agency 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.

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

- 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.
- 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.

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

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

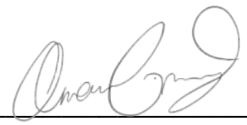
[6] *See also* The Center for Construction Research and Training, North America's Building Trades Unions (April 27 2020) NABTU and CPWR COVIC-19 Standards for U.S Constructions Sites, *available at* https://www.cpwr.com/sites/default/files/NABTU_CPWR_Standards_COVID-19.pdf; Los Angeles County Department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

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

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

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

Sincerely,



Omar Corona
Attorneys for Western States Regional Council of Carpenters

Attached:

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

Air Quality and GHG Expert Paul Rosenfeld CV (Exhibit B); and

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

[7] For details concerning Western Carpenters's ICRA training program, *see* https://www.swmsctf.org/courses/icra-best-practices-in-health-care-construction/

EXHIBIT A

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SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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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."[1] CalEEMod quantifies construction-related emissions associated with land use projects resulting from off-road construction equipment; on-road mobile equipment associated with workers, vendors, and hauling; fugitive dust associated with grading, demolition, truck loading, and on-road vehicles traveling along paved and unpaved roads; and architectural coating activities; and paving.[2]

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

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

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

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

> "$VMT_d = \Sigma(\text{Average Daily Trip Rate}_i * \text{Average Overall Trip Length}_i)_n$
>
> Where:
>
> n = Number of land uses being modeled."[5]

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

> "$\text{Emissions}_{pollutant} = VMT * EF_{running,pollutant}$
>
> Where:
>
> $\text{Emissions}_{pollutant}$ = emissions from vehicle running for each pollutant
>
> VMT = vehicle miles traveled
>
> $EF_{running,pollutant}$ = emission factor for running emissions."[6]

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

Default Worker Trip Parameters and Potential Local Hire Requirements

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

[4] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14-15.
[5] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 23.
[6] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[7] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[8] CalEEMod User Guide, *available at:* http://www.caleemod.com/, p. 1, 9.

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

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

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

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

[9] "CalEEMod User's Guide." CAPCOA, November 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4, p. 34.
[10] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 15.
[11] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 14.
[12] "Appendix A Calculation Details for CalEEMod." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf?sfvrsn=6, p. 21.
[13] "Appendix D Default Data Tables." CAPCOA, October 2017, *available at:* http://www.aqmd.gov/docs/default-source/caleemod/05_appendix-d2016-3-2.pdf?sfvrsn=4, p. D-84 – D-86.

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

Practical Application of a Local Hire Requirement and Associated Impact

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

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO_2e)	3,623
Amortized Construction GHG Emissions (MT CO_2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized Construction GHG Emissions (MT CO_2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

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

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

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

Disclaimer

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

Sincerely,



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



Paul E. Rosenfeld, Ph.D.

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

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

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

Worker Trip Length by Air Basin		
Air Basin	**Rural (miles)**	**Urban (miles)**
Great Basin Valleys	16.8	10.8
Lake County	16.8	10.8
Lake Tahoe	16.8	10.8
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San Diego	16.8	10.8
San Francisco Bay Area	10.8	10.8
San Joaquin Valley	16.8	10.8
South Central Coast	16.8	10.8
South Coast	19.8	14.7
Average	**16.47**	**11.17**
Mininum	**10.80**	**10.80**
Maximum	**19.80**	**14.70**
Range	**9.00**	**3.90**

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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

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

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

Project Characteristics - Consistent with the DEIR's model.

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

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

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

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

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

Energy Use -

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

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
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

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	62.64
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

2.0 Emissions Summary

2.1 Overall Construction

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	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**

2.1 Overall Construction

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	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	3.3648	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	N20	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

9	**9-1-2023**	**11-30-2023**	1.0265	1.0265
10	**12-1-2023**	**2-29-2024**	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

	ROG	NOx	CO	SO2	Fugitive 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
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

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

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

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

OffRoad Equipment

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

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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	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
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

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
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

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
Total	**2.9000e-003**	**0.0641**	**0.0233**	**2.0000e-004**	**6.4100e-003**	**2.1000e-004**	**6.6200e-003**	**1.7300e-003**	**2.0000e-004**	**1.9300e-003**	**0.0000**	**19.6816**	**19.6816**	**1.2800e-003**	**0.0000**	**19.7136**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

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
Total	**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**

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
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

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
Total	**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**

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		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

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
Total	**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**

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		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

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
Total	**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**

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		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

3.4 Grading - 2022

Unmitigated Construction Off-Site

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

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

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
Total	**2.8000e-004**	**2.1000e-004**	**2.4400e-003**	**1.0000e-005**	**7.7000e-004**	**1.0000e-005**	**7.7000e-004**	**2.0000e-004**	**1.0000e-005**	**2.1000e-004**	**0.0000**	**0.6679**	**0.6679**	**2.0000e-005**	**0.0000**	**0.6684**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

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	0.3066	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
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

Mitigated Construction On-Site

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

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	0.3066	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
Total	**0.4616**	**2.0027**	**3.9885**	**0.0152**	**1.2243**	**0.0121**	**1.2363**	**0.3278**	**0.0112**	**0.3390**	**0.0000**	**1,408.7952**	**1,408.7952**	**0.0530**	**0.0000**	**1,410.1208**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

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	909.9291
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

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
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

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
Total	**0.4135**	**1.5218**	**3.5707**	**0.0144**	**1.1953**	**9.8700e-003**	**1.2051**	**0.3200**	**9.1400e-003**	**0.3292**	**0.0000**	**1,327.3369**	**1,327.3369**	**0.0462**	**0.0000**	**1,328.4916**

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
Total	**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**

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
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**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**

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
Total	**3.7000e-004**	**2.7000e-004**	**3.1200e-003**	**1.0000e-005**	**1.0700e-003**	**1.0000e-005**	**1.0800e-003**	**2.8000e-004**	**1.0000e-005**	**2.9000e-004**	**0.0000**	**0.8963**	**0.8963**	**2.0000e-005**	**0.0000**	**0.8968**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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		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
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

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
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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		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
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

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
Total	**5.9000e-004**	**4.1000e-004**	**4.9200e-003**	**2.0000e-005**	**1.8100e-003**	**1.0000e-005**	**1.8200e-003**	**4.8000e-004**	**1.0000e-005**	**4.9000e-004**	**0.0000**	**1.4697**	**1.4697**	**4.0000e-005**	**0.0000**	**1.4706**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

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
Total	**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**

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	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

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
Total	**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**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	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
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	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	4075.50	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	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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

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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

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	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+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	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-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	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	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	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+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	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-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	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	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	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	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	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	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	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

7.0 Water Detail

7.1 Mitigation Measures Water

	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

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 / 40.0485	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
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

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 / 40.0485	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
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

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
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
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
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

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

Project Characteristics - Consistent with the DEIR's model.

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

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

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

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

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

Energy Use -

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

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
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

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	62.64
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

2.0 Emissions Summary

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	46.4588	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	46.7567	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	9.5575	15.1043	0.0244	1.7884	0.4698	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**	**46.4588**	**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**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2769	46.4588	31.6840	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	46.7567	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	0.4698	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**	**46.4588**	**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**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

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	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

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

OffRoad Equipment

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

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

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
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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
Total	**0.1916**	**4.1394**	**1.5644**	**0.0136**	**0.4346**	**0.0139**	**0.4485**	**0.1176**	**0.0133**	**0.1309**		**1,463.0568**	**1,463.0568**	**0.0927**		**1,465.3750**

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
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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
Total	**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**

Mitigated Construction On-Site

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

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
Total	**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**

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**

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
Total	**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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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
Total	**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**

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
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

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
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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
Total	**0.0803**	**0.0532**	**0.7432**	**2.2100e-003**	**0.2236**	**1.7500e-003**	**0.2253**	**0.0593**	**1.6100e-003**	**0.0609**		**219.7425**	**219.7425**	**6.0600e-003**		**219.8941**

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**

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
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**		**12,708.8966**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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**		**12,708.8966**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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**

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
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

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
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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
Total	**3.3229**	**11.9468**	**30.5127**	**0.1203**	**9.8688**	**0.0797**	**9.9485**	**2.6381**	**0.0738**	**2.7118**		**12,252.3170**	**12,252.3170**	**0.4172**		**12,262.7460**

3.6 Paving - 2023

Unmitigated Construction On-Site

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

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
Total	**0.0566**	**0.0361**	**0.5133**	**1.5900e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**158.7723**	**158.7723**	**4.1000e-003**		**158.8748**

Mitigated Construction On-Site

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

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			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**

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
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

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			0.0000
Total	**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**

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
Total	**0.0535**	**0.0329**	**0.4785**	**1.5400e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**153.8517**	**153.8517**	**3.7600e-003**		**153.9458**

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
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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		1,641.0852	1,641.0852	0.0401		1,642.0886
Total	**0.5707**	**0.3513**	**5.1044**	**0.0165**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,641.0852**	**1,641.0852**	**0.0401**		**1,642.0886**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	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	4075.50	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	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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

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		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	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

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	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		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		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		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		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		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	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		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	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		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		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		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		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		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	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		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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**

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
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**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

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

1.3 User Entered Comments & Non-Default Data

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

Project Characteristics - Consistent with the DEIR's model.

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

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

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

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

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

Energy Use -

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

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82
tblVehicleTrips	ST_TR	8.19	3.75
tblVehicleTrips	ST_TR	94.36	63.99
tblVehicleTrips	ST_TR	49.97	10.74
tblVehicleTrips	SU_TR	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	57.65
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	62.64
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

2.0 Emissions Summary

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	4.2865	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**

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**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

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
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		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
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

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

OffRoad Equipment

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

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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		1,269.8555	1,269.8555	0.0908		1,272.1252
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		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

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
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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		1,269.8555	1,269.8555	0.0908		1,272.1252
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		160.8377	160.8377	4.7300e-003		160.9560
Total	**0.2019**	**4.1943**	**1.5706**	**0.0133**	**0.4346**	**0.0141**	**0.4487**	**0.1176**	**0.0135**	**0.1311**		**1,430.6932**	**1,430.6932**	**0.0955**		**1,433.0812**

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
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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
Total	**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**

Mitigated Construction On-Site

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

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
Total	**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**

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**

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
Total	**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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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
Total	**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**

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
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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
Total	**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**

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
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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
Total	**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**

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**

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
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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
Total	**4.0156**	**15.5266**	**30.9685**	**0.1186**	**9.8688**	**0.0957**	**9.9645**	**2.6381**	**0.0891**	**2.7271**		**12,075.9763**	**12,075.9763**	**0.4663**		**12,087.6341**

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**

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
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

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
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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	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
Total	**3.6978**	**12.1065**	**28.3496**	**0.1144**	**9.8688**	**0.0803**	**9.9491**	**2.6381**	**0.0743**	**2.7124**		**11,655.1325**	**11,655.1325**	**0.4151**		**11,665.5099**

3.6 Paving - 2023

Unmitigated Construction On-Site

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

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
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

Mitigated Construction On-Site

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

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
Total	**0.0633**	**0.0400**	**0.4677**	**1.5000e-003**	**0.1677**	**1.2800e-003**	**0.1689**	**0.0445**	**1.1700e-003**	**0.0456**		**149.5081**	**149.5081**	**3.8500e-003**		**149.6043**

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			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**

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
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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			0.0000
Total	**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**

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
Total	**0.0601**	**0.0364**	**0.4354**	**1.4500e-003**	**0.1677**	**1.2600e-003**	**0.1689**	**0.0445**	**1.1600e-003**	**0.0456**		**144.8706**	**144.8706**	**3.5300e-003**		**144.9587**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

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
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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		1,545.2860	1,545.2860	0.0376		1,546.2262
Total	**0.6406**	**0.3886**	**4.6439**	**0.0155**	**1.7884**	**0.0134**	**1.8018**	**0.4743**	**0.0123**	**0.4866**		**1,545.2860**	**1,545.2860**	**0.0376**		**1,546.2262**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	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	4075.50	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	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	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
NaturalGas Unmitigated	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

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	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		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		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		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		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		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	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		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	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		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		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		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		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		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	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		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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**

6.2 Area by SubCategory

Mitigated

SubCategory	ROG	NOx	CO	SO2	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					
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**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Village South Specific Plan (Proposed)

Los Angeles-South Coast County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	45.00	1000sqft	1.03	45,000.00	0
High Turnover (Sit Down Restaurant)	36.00	1000sqft	0.83	36,000.00	0
Hotel	50.00	Room	1.67	72,600.00	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

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

1.3 User Entered Comments & Non-Default Data

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

Project Characteristics - Consistent with the DEIR's model.

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

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

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

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

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

Energy Use -

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

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

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

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	57.65
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	62.64
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

2.0 Emissions Summary

2.1 Overall Construction

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	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	0.1313	0.2557	5.0000e-004	0.0221	6.3900e-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**

2.1 Overall Construction

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	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	0.5865	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	6.3900e-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	N20	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

9	**9-1-2023**	**11-30-2023**	0.9798	0.9798
10	**12-1-2023**	**2-29-2024**	2.8757	2.8757
11	**3-1-2024**	**5-31-2024**	1.6188	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	7.6200e-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
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
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
Total	**6.8692**	**9.5223**	**30.3407**	**0.0914**	**7.7979**	**0.2260**	**8.0240**	**2.0895**	**0.2219**	**2.3114**	**236.9712**	**12,294.1807**	**12,531.1519**	**15.7904**	**0.1260**	**12,963.4751**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

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

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

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

OffRoad Equipment

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

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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	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
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0012**	**51.0012**	**0.0144**	**0.0000**	**51.3601**

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	1.5293
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**0.0475**	**0.4716**	**0.3235**	**5.8000e-004**	**0.0496**	**0.0233**	**0.0729**	**7.5100e-003**	**0.0216**	**0.0291**	**0.0000**	**51.0011**	**51.0011**	**0.0144**	**0.0000**	**51.3600**

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
Total	**2.6500e-003**	**0.0639**	**0.0209**	**2.0000e-004**	**5.6200e-003**	**2.0000e-004**	**5.8200e-003**	**1.5300e-003**	**1.9000e-004**	**1.7200e-003**	**0.0000**	**18.9847**	**18.9847**	**1.2600e-003**	**0.0000**	**19.0161**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7061**

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
Total	**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**

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
Total	**0.0389**	**0.4050**	**0.2115**	**3.8000e-004**	**0.1807**	**0.0204**	**0.2011**	**0.0993**	**0.0188**	**0.1181**	**0.0000**	**33.4357**	**33.4357**	**0.0108**	**0.0000**	**33.7060**

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	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
Total	**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**

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		0.0347	0.0347	0.0000	103.5405	103.5405	0.0335	0.0000	104.3776
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5405**	**103.5405**	**0.0335**	**0.0000**	**104.3776**

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	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

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		0.0347	0.0347	0.0000	103.5403	103.5403	0.0335	0.0000	104.3775
Total	**0.0796**	**0.8816**	**0.5867**	**1.1800e-003**	**0.1741**	**0.0377**	**0.2118**	**0.0693**	**0.0347**	**0.1040**	**0.0000**	**103.5403**	**103.5403**	**0.0335**	**0.0000**	**104.3775**

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	1.2200e-003	9.0000e-004	0.0103	3.0000e-005	2.8300e-003	2.0000e-005	2.8600e-003	7.5000e-004	2.0000e-005	7.8000e-004	0.0000	2.5808	2.5808	8.0000e-005	0.0000	2.5828
Total	**1.2200e-003**	**9.0000e-004**	**0.0103**	**3.0000e-005**	**2.8300e-003**	**2.0000e-005**	**2.8600e-003**	**7.5000e-004**	**2.0000e-005**	**7.8000e-004**	**0.0000**	**2.5808**	**2.5808**	**8.0000e-005**	**0.0000**	**2.5828**

3.4 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

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	2.1000e-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
Total	**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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0807	0.0000	0.0807	0.0180	0.0000	0.0180	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0127	0.1360	0.1017	2.2000e-004		5.7200e-003	5.7200e-003		5.2600e-003	5.2600e-003	0.0000	19.0871	19.0871	6.1700e-003	0.0000	19.2414
Total	**0.0127**	**0.1360**	**0.1017**	**2.2000e-004**	**0.0807**	**5.7200e-003**	**0.0865**	**0.0180**	**5.2600e-003**	**0.0233**	**0.0000**	**19.0871**	**19.0871**	**6.1700e-003**	**0.0000**	**19.2414**

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
Total	**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**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

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

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
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**0.2158**	**1.9754**	**2.0700**	**3.4100e-003**		**0.1023**	**0.1023**		**0.0963**	**0.0963**	**0.0000**	**293.1321**	**293.1321**	**0.0702**	**0.0000**	**294.8877**

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	0.3051	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
Total	**0.3578**	**1.9125**	**2.9812**	**0.0119**	**0.8696**	**9.4100e-003**	**0.8790**	**0.2336**	**8.7800e-003**	**0.2424**	**0.0000**	**1,105.9771**	**1,105.9771**	**0.0451**	**0.0000**	**1,107.1039**

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
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2789**	**286.2789**	**0.0681**	**0.0000**	**287.9814**

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
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**0.1942**	**1.7765**	**2.0061**	**3.3300e-003**		**0.0864**	**0.0864**		**0.0813**	**0.0813**	**0.0000**	**286.2785**	**286.2785**	**0.0681**	**0.0000**	**287.9811**

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
Total	**0.3177**	**1.4420**	**2.6646**	**0.0112**	**0.8490**	**7.3700e-003**	**0.8564**	**0.2281**	**6.8500e-003**	**0.2349**	**0.0000**	**1,042.5294**	**1,042.5294**	**0.0392**	**0.0000**	**1,043.5090**

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
Total	**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**

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
Total	**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**

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
Total	**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**

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	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
Total	**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**

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		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
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

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	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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		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
Total	**0.0109**	**0.1048**	**0.1609**	**2.5000e-004**		**5.1500e-003**	**5.1500e-003**		**4.7400e-003**	**4.7400e-003**	**0.0000**	**22.0292**	**22.0292**	**7.1200e-003**	**0.0000**	**22.2073**

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	4.4000e-004	2.9000e-004	3.5100e-003	1.0000e-005	1.2300e-003	1.0000e-005	1.2400e-003	3.3000e-004	1.0000e-005	3.4000e-004	0.0000	1.0094	1.0094	3.0000e-005	0.0000	1.0100
Total	**4.4000e-004**	**2.9000e-004**	**3.5100e-003**	**1.0000e-005**	**1.2300e-003**	**1.0000e-005**	**1.2400e-003**	**3.3000e-004**	**1.0000e-005**	**3.4000e-004**	**0.0000**	**1.0094**	**1.0094**	**3.0000e-005**	**0.0000**	**1.0100**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

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
Total	**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**

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	0.0000	4.4682	4.4682	2.5000e-004	0.0000	4.4745
Total	**4.1404**	**0.0213**	**0.0317**	**5.0000e-005**		**1.0700e-003**	**1.0700e-003**		**1.0700e-003**	**1.0700e-003**	**0.0000**	**4.4682**	**4.4682**	**2.5000e-004**	**0.0000**	**4.4745**

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	7.4800e-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
Total	**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**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive 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	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
Unmitigated	1.5857	7.9962	19.1834	0.0821	7.7979	0.0580	7.8559	2.0895	0.0539	2.1434	0.0000	7,620.4986	7,620.4986	0.3407	0.0000	7,629.0162

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	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	4075.50	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	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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

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					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	2,512.6465	2,512.6465	0.1037	0.0215	2,521.6356
NaturalGas Mitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478
NaturalGas Unmitigated	0.1398	1.2312	0.7770	7.6200e-003		0.0966	0.0966		0.0966	0.0966	0.0000	1,383.4267	1,383.4267	0.0265	0.0254	1,391.6478

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	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+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	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-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	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	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	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	2.2000e-003	0.0188	8.0100e-003	1.2000e-004		1.5200e-003	1.5200e-003		1.5200e-003	1.5200e-003	0.0000	21.7988	21.7988	4.2000e-004	4.0000e-004	21.9284
Apartments Mid Rise	1.30613e+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	2.5300e-003	0.0230	0.0193	1.4000e-004		1.7500e-003	1.7500e-003		1.7500e-003	1.7500e-003	0.0000	24.9983	24.9983	4.8000e-004	4.6000e-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	9.3900e-003	0.0853	0.0717	5.1000e-004		6.4900e-003	6.4900e-003		6.4900e-003	6.4900e-003	0.0000	92.9036	92.9036	1.7800e-003	1.7000e-003	93.4557
Quality Restaurant	1.84608e+006	9.9500e-003	0.0905	0.0760	5.4000e-004		6.8800e-003	6.8800e-003		6.8800e-003	6.8800e-003	0.0000	98.5139	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	0.0000	4.9009	4.9009	9.0000e-005	9.0000e-005	4.9301
Total		**0.1398**	**1.2312**	**0.7770**	**7.6200e-003**		**0.0966**	**0.0966**		**0.0966**	**0.0966**	**0.0000**	**1,383.4268**	**1,383.4268**	**0.0265**	**0.0254**	**1,391.6478**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	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	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	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	756000	240.8778	9.9400e-003	2.0600e-003	241.7395
Total		**2,512.6465**	**0.1037**	**0.0215**	**2,521.6356**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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
Total	**5.1437**	**0.2950**	**10.3804**	**1.6600e-003**		**0.0714**	**0.0714**		**0.0714**	**0.0714**	**0.0000**	**220.9670**	**220.9670**	**0.0201**	**3.7400e-003**	**222.5835**

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	585.8052	3.0183	0.0755	683.7567
Unmitigated	585.8052	3.0183	0.0755	683.7567

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 / 40.0485	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
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

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 / 40.0485	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
Total		**585.8052**	**3.0183**	**0.0755**	**683.7567**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

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

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
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Apartments Low Rise	11.5	2.3344	0.1380	0.0000	5.7834
Apartments Mid Rise	448.5	91.0415	5.3804	0.0000	225.5513
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
Total		**207.8079**	**12.2811**	**0.0000**	**514.8354**

9.0 Operational Offroad

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

1.2 Other Project Characteristics

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

1.3 User Entered Comments & Non-Default Data

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

Project Characteristics - Consistent with the DEIR's model.

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

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

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

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

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

Energy Use -

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

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

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	57.65
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	62.64
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

2.0 Emissions Summary

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	4.2561	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	0.7166	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**

2.1 Overall Construction (Maximum Daily Emission)

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2021	4.2561	46.4415	31.4494	0.0636	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	0.7166	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**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

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	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

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	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Total	**41.1168**	**67.2262**	**207.5497**	**0.6278**	**45.9592**	**2.4626**	**48.4217**	**12.2950**	**2.4385**	**14.7336**	**0.0000**	**76,811.1816**	**76,811.1816**	**2.8282**	**0.4832**	**77,025.8786**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

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

OffRoad Equipment

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

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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	0.0487	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
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

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
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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	0.0487	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
Total	**0.1760**	**4.1265**	**1.3884**	**0.0131**	**0.3810**	**0.0135**	**0.3946**	**0.1034**	**0.0129**	**0.1163**		**1,409.5212**	**1,409.5212**	**0.0912**		**1,411.8015**

3.3 Site Preparation - 2021

Unmitigated Construction On-Site

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

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
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**

Mitigated Construction On-Site

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

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**

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
Total	**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**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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
Total	**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**

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
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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
Total	**0.0607**	**0.0376**	**0.5263**	**1.5100e-003**	**0.1521**	**1.2300e-003**	**0.1534**	**0.0404**	**1.1300e-003**	**0.0415**		**150.8754**	**150.8754**	**4.2400e-003**		**150.9813**

3.5 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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**

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
Total	**2.8378**	**14.7106**	**24.5142**	**0.0971**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

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
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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**	**7.0087**	**0.0741**	**7.0828**	**1.8799**	**0.0691**	**1.9490**		**9,939.1067**	**9,939.1067**	**0.3933**		**9,948.9384**

3.5 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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**

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	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
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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
Total	**2.5807**	**11.3809**	**22.5017**	**0.0936**	**7.0088**	**0.0595**	**7.0682**	**1.8799**	**0.0552**	**1.9350**		**9,595.2790**	**9,595.2790**	**0.3511**		**9,604.0554**

3.6 Paving - 2023

Unmitigated Construction On-Site

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

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
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

Mitigated Construction On-Site

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

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
Total	**0.0427**	**0.0255**	**0.3633**	**1.0900e-003**	**0.1141**	**9.0000e-004**	**0.1150**	**0.0303**	**8.3000e-004**	**0.0311**		**109.0150**	**109.0150**	**2.8600e-003**		**109.0866**

3.6 Paving - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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			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**

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
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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			0.0000
Total	**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**

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
Total	**0.0403**	**0.0233**	**0.3384**	**1.0600e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**105.6336**	**105.6336**	**2.6300e-003**		**105.6992**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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
Total	**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**

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
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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
Total	**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**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208
Unmitigated	9.8489	45.4304	114.8495	0.4917	45.9592	0.3360	46.2951	12.2950	0.3119	12.6070		50,306.6034	50,306.6034	2.1807		50,361.1208

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	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	4075.50	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	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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

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		8,355.9832	8,355.9832	0.1602	0.1532	8,405.6387
NaturalGas Unmitigated	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

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	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		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		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		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		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		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	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		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	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		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		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		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		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		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	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		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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**

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
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**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

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

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

1.3 User Entered Comments & Non-Default Data

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

Project Characteristics - Consistent with the DEIR's model.

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

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

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

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

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

Energy Use -

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

Area Mitigation - See SWAPE comment regarding operational mitigation measures.

Water Mitigation - See SWAPE comment regarding operational mitigation measures.

Trips and VMT - Local hire provision

Table Name	Column Name	Default Value	New Value
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	FireplaceWoodMass	1,019.20	0.00
tblFireplaces	NumberWood	1.25	0.00
tblFireplaces	NumberWood	48.75	0.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblTripsAndVMT	WorkerTripLength	14.70	10.00
tblVehicleTrips	ST_TR	7.16	6.17
tblVehicleTrips	ST_TR	6.39	3.87
tblVehicleTrips	ST_TR	2.46	1.39
tblVehicleTrips	ST_TR	158.37	79.82

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	57.65
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	62.64
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

2.0 Emissions Summary

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	4.2621	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**

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**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	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**

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
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	30.5020	15.0496	88.4430	0.0944		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
Total	**40.7912**	**67.7872**	**202.7424**	**0.6043**	**45.9592**	**2.4640**	**48.4231**	**12.2950**	**2.4399**	**14.7349**	**0.0000**	**74,422.3787**	**74,422.3787**	**2.8429**	**0.4832**	**74,637.4417**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

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

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 112.5

Acres of Paving: 0

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

OffRoad Equipment

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

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Demolition	Excavators	3	8.00	158	0.38
Demolition	Rubber Tired Dozers	2	8.00	247	0.40
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Site Preparation	Tractors/Loaders/Backhoes	4	8.00	97	0.37
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Rubber Tired Dozers	1	8.00	247	0.40
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	6.00	78	0.48

Trips and VMT

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

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		1,269.8555	1,269.8555	0.0908		1,272.1252
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		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

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
Total	**3.1651**	**31.4407**	**21.5650**	**0.0388**	**3.3074**	**1.5513**	**4.8588**	**0.5008**	**1.4411**	**1.9419**	**0.0000**	**3,747.9449**	**3,747.9449**	**1.0549**		**3,774.3174**

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		1,269.8555	1,269.8555	0.0908		1,272.1252
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		110.4707	110.4707	3.3300e-003		110.5539
Total	**0.1835**	**4.1800**	**1.4144**	**0.0128**	**0.3810**	**0.0137**	**0.3948**	**0.1034**	**0.0131**	**0.1165**		**1,380.3262**	**1,380.3262**	**0.0941**		**1,382.6791**

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
Total	**3.8882**	**40.4971**	**21.1543**	**0.0380**	**18.0663**	**2.0445**	**20.1107**	**9.9307**	**1.8809**	**11.8116**		**3,685.6569**	**3,685.6569**	**1.1920**		**3,715.4573**

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
Total	**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**

Mitigated Construction On-Site

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

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
Total	**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**

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**

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
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.6733	0.0000	8.6733	3.5965	0.0000	3.5965			0.0000			0.0000
Off-Road	4.1912	46.3998	30.8785	0.0620		1.9853	1.9853		1.8265	1.8265	0.0000	6,007.0434	6,007.0434	1.9428		6,055.6134
Total	**4.1912**	**46.3998**	**30.8785**	**0.0620**	**8.6733**	**1.9853**	**10.6587**	**3.5965**	**1.8265**	**5.4230**	**0.0000**	**6,007.0434**	**6,007.0434**	**1.9428**		**6,055.6134**

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
Total	**0.0709**	**0.0462**	**0.5284**	**1.4800e-003**	**0.1521**	**1.2700e-003**	**0.1534**	**0.0404**	**1.1700e-003**	**0.0415**		**147.2943**	**147.2943**	**4.4300e-003**		**147.4051**

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
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**		**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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
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**

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
Total	**3.6248**	**38.8435**	**29.0415**	**0.0621**	**8.6733**	**1.6349**	**10.3082**	**3.5965**	**1.5041**	**5.1006**	**0.0000**	**6,011.4105**	**6,011.4105**	**1.9442**		**6,060.0158**

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	0.0665	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**

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
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**1.7062**	**15.6156**	**16.3634**	**0.0269**		**0.8090**	**0.8090**		**0.7612**	**0.7612**	**0.0000**	**2,554.3336**	**2,554.3336**	**0.6120**		**2,569.6322**

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	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
Total	**3.0904**	**14.8350**	**23.2704**	**0.0926**	**7.0087**	**0.0749**	**7.0836**	**1.8799**	**0.0699**	**1.9498**		**9,481.0104**	**9,481.0104**	**0.3984**		**9,490.9691**

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**

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	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
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

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
Total	**1.5728**	**14.3849**	**16.2440**	**0.0269**		**0.6997**	**0.6997**		**0.6584**	**0.6584**	**0.0000**	**2,555.2099**	**2,555.2099**	**0.6079**		**2,570.4061**

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
Total	**2.8211**	**11.4799**	**21.2591**	**0.0893**	**7.0088**	**0.0601**	**7.0688**	**1.8799**	**0.0557**	**1.9356**		**9,155.1981**	**9,155.1981**	**0.3538**		**9,164.0437**

3.6 Paving - 2023

Unmitigated Construction On-Site

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

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
Total	**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**

Mitigated Construction On-Site

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

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	0.0469	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
Total	**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**

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			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**

3.6 Paving - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000		0.0000
Worker	0.0444	0.0257	0.3114	1.0000e-003	0.1141	8.8000e-004	0.1150	0.0303	8.1000e-004	0.0311		99.5045	99.5045	2.4700e-003		99.5663
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.9882	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			0.0000
Total	**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**

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
Total	**0.0444**	**0.0257**	**0.3114**	**1.0000e-003**	**0.1141**	**8.8000e-004**	**0.1150**	**0.0303**	**8.1000e-004**	**0.0311**		**99.5045**	**99.5045**	**2.4700e-003**		**99.5663**

3.7 Architectural Coating - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	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
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**		**281.4481**	**281.4481**	**0.0159**		**281.8443**

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
Total	**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**

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
Total	**236.5923**	**1.2188**	**1.8101**	**2.9700e-003**		**0.0609**	**0.0609**		**0.0609**	**0.0609**	**0.0000**	**281.4481**	**281.4481**	**0.0159**		**281.8443**

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
Total	**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**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839
Unmitigated	9.5233	45.9914	110.0422	0.4681	45.9592	0.3373	46.2965	12.2950	0.3132	12.6083		47,917.8005	47,917.8005	2.1953		47,972.6839

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	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	4075.50	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	160.00	445,703	445,703
Quality Restaurant	501.12	511.92	461.20	707,488	707,488
Regional Shopping Center	528.08	601.44	357.84	1,112,221	1,112,221
Total	8,050.95	8,164.43	8,057.31	20,552,452	20,552,452

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	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

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

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.7660	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
NaturalGas Unmitigated	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

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	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		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		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		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		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		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5057.75	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	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		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

5.2 Energy by Land Use - NaturalGas

Mitigated

	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	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		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		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		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		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		561.1436	561.1436	0.0108	0.0103	564.4782
Quality Restaurant	5.05775	0.0545	0.4959	0.4165	2.9800e-003		0.0377	0.0377		0.0377	0.0377		595.0298	595.0298	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		29.6019	29.6019	5.7000e-004	5.4000e-004	29.7778
Total		**0.7660**	**6.7463**	**4.2573**	**0.0418**		**0.5292**	**0.5292**		**0.5292**	**0.5292**		**8,355.9832**	**8,355.9832**	**0.1602**	**0.1532**	**8,405.6387**

6.0 Area Detail

6.1 Mitigation Measures Area

	ROG	NOx	CO	SO2	Fugitive 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**

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
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**

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

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

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

Boilers

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

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

Attachment C

Local Hire Provision Net Change	
Without Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,623
Amortized (MT CO2e/year)	120.77
With Local Hire Provision	
Total Construction GHG Emissions (MT CO2e)	3,024
Amortized (MT CO2e/year)	100.80
% Decrease in Construction-related GHG Emissions	***17%***

EXHIBIT B

SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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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.

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_2O Science, 2001 to 2003; Senior Remediation Scientist
National Groundwater Association, 2002-2004; Lecturer
San Diego State University, 1999-2001; Adjunct Professor
Anteon Corp., San Diego, 2000-2001; Remediation Project Manager
Ogden (now Amec), San Diego, 2000-2000; Remediation Project Manager
Bechtel, San Diego, California, 1999 – 2000; Risk Assessor
King County, Seattle, 1996 – 1999; Scientist
James River Corp., Washington, 1995-96; Scientist
Big Creek Lumber, Davenport, California, 1995; Scientist
Plumas Corp., California and USFS, Tahoe 1993-1995; Scientist
Peace Corps and World Wildlife Fund, St. Kitts, West Indies, 1991-1993; Scientist

Publications:

Remy, L.L., Clay T., Byers, V., **Rosenfeld P. E.** (2019) Hospital, Health, and Community Burden After Oil Refinery Fires, Richmond, California 2007 and 2012. *Environmental Health.* 18:48

Simons, R.A., Seo, Y. **Rosenfeld, P**., (2015) Modeling the Effect of Refinery Emission On Residential Property Value. Journal of Real Estate Research. 27(3):321-342

Chen, J. A, Zapata A. R., Sutherland A. J., Molmen, D.R., Chow, B. S., Wu, L. E., **Rosenfeld, P. E.,** Hesse, R. C., (2012) Sulfur Dioxide and Volatile Organic Compound Exposure To A Community In Texas City Texas Evaluated Using Aermod and Empirical Data. *American Journal of Environmental Science*, 8(6), 622-632.

Rosenfeld, P.E. & Feng, L. (2011). *The Risks of Hazardous Waste.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2011). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Agrochemical Industry*, Amsterdam: Elsevier Publishing.

Gonzalez, J., Feng, L., Sutherland, A., Waller, C., Sok, H., Hesse, R., **Rosenfeld, P.** (2010). PCBs and Dioxins/Furans in Attic Dust Collected Near Former PCB Production and Secondary Copper Facilities in Sauget, IL. *Procedia Environmental Sciences*. 113–125.

Feng, L., Wu, C., Tam, L., Sutherland, A.J., Clark, J.J., **Rosenfeld, P.E.** (2010). Dioxin and Furan Blood Lipid and Attic Dust Concentrations in Populations Living Near Four Wood Treatment Facilities in the United States. *Journal of Environmental Health*. 73(6), 34-46.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2010). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Wood and Paper Industries.* Amsterdam: Elsevier Publishing.

Cheremisinoff, N.P., & **Rosenfeld, P.E.** (2009). *Handbook of Pollution Prevention and Cleaner Production: Best Practices in the Petroleum Industry*. Amsterdam: Elsevier Publishing.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. *WIT Transactions on Ecology and the Environment, Air Pollution,* 123 (17), 319-327.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). A Statistical Analysis Of Attic Dust And Blood Lipid Concentrations Of Tetrachloro-p-Dibenzodioxin (TCDD) Toxicity Equivalency Quotients (TEQ) In Two Populations Near Wood Treatment Facilities. *Organohalogen Compounds*, 70, 002252-002255.

Tam L. K.., Wu C. D., Clark J. J. and **Rosenfeld, P.E.** (2008). Methods For Collect Samples For Assessing Dioxins And Other Environmental Contaminants In Attic Dust: A Review. *Organohalogen Compounds*, 70, 000527-000530.

Hensley, A.R. A. Scott, J. J. J. Clark, **Rosenfeld, P.E.** (2007). Attic Dust and Human Blood Samples Collected near a Former Wood Treatment Facility. *Environmental Research*. 105, 194-197.

Rosenfeld, P.E., J. J. J. Clark, A. R. Hensley, M. Suffet. (2007). The Use of an Odor Wheel Classification for Evaluation of Human Health Risk Criteria for Compost Facilities. *Water Science & Technology* 55(5), 345-357.

Rosenfeld, P. E., M. Suffet. (2007). The Anatomy Of Odour Wheels For Odours Of Drinking Water, Wastewater, Compost And The Urban Environment. *Water Science & Technology* 55(5), 335-344.

Sullivan, P. J. Clark, J.J.J., Agardy, F. J., **Rosenfeld, P.E.** (2007). *Toxic Legacy, Synthetic Toxins in the Food, Water, and Air in American Cities.* Boston Massachusetts: Elsevier Publishing

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash. *Water Science and Technology*. 49(9),171-178.

Rosenfeld P. E., J.J. Clark, I.H. (Mel) Suffet (2004). The Value of An Odor-Quality-Wheel Classification Scheme For The Urban Environment. *Water Environment Federation's Technical Exhibition and Conference (WEFTEC) 2004.* New Orleans, October 2-6, 2004.

Rosenfeld, P.E., and Suffet, I.H. (2004). Understanding Odorants Associated With Compost, Biomass Facilities, and the Land Application of Biosolids. *Water Science and Technology*. 49(9), 193-199.

Rosenfeld, P.E., and Suffet I.H. (2004). Control of Compost Odor Using High Carbon Wood Ash, *Water Science and Technology*, 49(9), 171-178.

Rosenfeld, P. E., Grey, M. A., Sellew, P. (2004). Measurement of Biosolids Odor and Odorant Emissions from Windrows, Static Pile and Biofilter. *Water Environment Research*. 76(4), 310-315.

Rosenfeld, P.E., Grey, M and Suffet, M. (2002). Compost Demonstration Project, Sacramento California Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Integrated Waste Management Board Public Affairs Office*, Publications Clearinghouse (MS–6), Sacramento, CA Publication #442-02-008.

Rosenfeld, P.E., and C.L. Henry. (2001). Characterization of odor emissions from three different biosolids. *Water Soil and Air Pollution*. 127(1-4), 173-191.

Rosenfeld, P.E., and Henry C. L., (2000). Wood ash control of odor emissions from biosolids application. *Journal of Environmental Quality.* 29, 1662-1668.

Rosenfeld, P.E., C.L. Henry and D. Bennett. (2001). Wastewater dewatering polymer affect on biosolids odor emissions and microbial activity. *Water Environment Research*. 73(4), 363-367.

Rosenfeld, P.E., and C.L. Henry. (2001). Activated Carbon and Wood Ash Sorption of Wastewater, Compost, and Biosolids Odorants. *Water Environment Research*, 73, 388-393.

Rosenfeld, P.E., and Henry C. L., (2001). High carbon wood ash effect on biosolids microbial activity and odor. *Water Environment Research*. 131(1-4), 247-262.

Chollack, T. and **P. Rosenfeld. (**1998). Compost Amendment Handbook For Landscaping. Prepared for and distributed by the City of Redmond, Washington State.

Rosenfeld, P. E. (1992). The Mount Liamuiga Crater Trail. *Heritage Magazine of St. Kitts*, 3(2).

Rosenfeld, P. E. (1993). High School Biogas Project to Prevent Deforestation On St. Kitts. *Biomass Users Network*, 7(1).

Rosenfeld, P. E. (1998). Characterization, Quantification, and Control of Odor Emissions From Biosolids Application To Forest Soil. Doctoral Thesis. University of Washington College of Forest Resources.

Rosenfeld, P. E. (1994). Potential Utilization of Small Diameter Trees on Sierra County Public Land. Masters thesis reprinted by the Sierra County Economic Council. Sierra County, California.

Rosenfeld, P. E. (1991). How to Build a Small Rural Anaerobic Digester & Uses Of Biogas In The First And Third World. Bachelors Thesis. University of California.

Presentations:

Rosenfeld, P.E., Sutherland, A; Hesse, R.; Zapata, A. (October 3-6, 2013). Air dispersion modeling of volatile organic emissions from multiple natural gas wells in Decatur, TX. *44th Western Regional Meeting, American Chemical Society.* Lecture conducted from Santa Clara, CA.

Sok, H.L.; Waller, C.C.; Feng, L.; Gonzalez, J.; Sutherland, A.J.; Wisdom-Stack, T.; Sahai, R.K.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Atrazine: A Persistent Pesticide in Urban Drinking Water. *Urban Environmental Pollution*. Lecture conducted from Boston, MA.

Feng, L.; Gonzalez, J.; Sok, H.L.; Sutherland, A.J.; Waller, C.C.; Wisdom-Stack, T.; Sahai, R.K.; La, M.; Hesse, R.C.; **Rosenfeld, P.E.** (June 20-23, 2010). Bringing Environmental Justice to East St. Louis, Illinois. *Urban Environmental Pollution.* Lecture conducted from Boston, MA.

Rosenfeld, P.E. (April 19-23, 2009). Perfluoroctanoic Acid (PFOA) and Perfluoroactane 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.

Wu, C., Tam, L., Clark, J., **Rosenfeld, P**. (20-22 July, 2009). Dioxin and furan blood lipid concentrations in populations living near four wood treatment facilities in the United States. Brebbia, C.A. and Popov, V., eds., *Air Pollution XVII: Proceedings of the Seventeenth International Conference on Modeling, Monitoring and Management of Air Pollution*. Lecture conducted from Tallinn, Estonia.

Rosenfeld, P. E. (October 15-18, 2007). Moss Point Community Exposure To Contaminants From A Releasing Facility. *The 23rd Annual International Conferences on Soils Sediment and Water.* Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). The Repeated Trespass of Tritium-Contaminated Water Into A Surrounding Community Form Repeated Waste Spills From A Nuclear Power Plant. *The 23rd Annual International Conferences on Soils Sediment and Water*. Platform lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld, P. E. (October 15-18, 2007). Somerville Community Exposure To Contaminants From Wood Treatment Facility Emissions. The *23rd Annual International Conferences on Soils Sediment and Water*. Lecture conducted from University of Massachusetts, Amherst MA.

Rosenfeld P. E. (March 2007). Production, Chemical Properties, Toxicology, & Treatment Case Studies of 1,2,3-Trichloropropane (TCP). *The Association for Environmental Health and Sciences (AEHS) Annual Meeting*. Lecture conducted from San Diego, CA.

Rosenfeld P. E. (March 2007). Blood and Attic Sampling for Dioxin/Furan, PAH, and Metal Exposure in Florala, Alabama. *The AEHS Annual Meeting.* Lecture conducted from San Diego, CA.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (August 21 – 25, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *The 26th International Symposium on Halogenated Persistent Organic Pollutants – DIOXIN2006*. Lecture conducted from Radisson SAS Scandinavia Hotel in Oslo Norway.

Hensley A.R., Scott, A., **Rosenfeld P.E.,** Clark, J.J.J. (November 4-8, 2006). Dioxin Containing Attic Dust And Human Blood Samples Collected Near A Former Wood Treatment Facility. *APHA 134 Annual Meeting & Exposition.* Lecture conducted from Boston Massachusetts.

Paul Rosenfeld Ph.D. (October 24-25, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. Mealey's C8/PFOA. *Science, Risk & Litigation Conference.* Lecture conducted from The Rittenhouse Hotel, Philadelphia, PA.

Paul Rosenfeld Ph.D. (September 19, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, *Toxicology and Remediation PEMA Emerging Contaminant Conference*. Lecture conducted from Hilton Hotel, Irvine California.

Paul Rosenfeld Ph.D. (September 19, 2005). Fate, Transport, Toxicity, And Persistence of 1,2,3-TCP. *PEMA Emerging Contaminant Conference.* Lecture conducted from Hilton Hotel in Irvine, California.

Paul Rosenfeld Ph.D. (September 26-27, 2005). Fate, Transport and Persistence of PDBEs. *Mealey's Groundwater Conference.* Lecture conducted from Ritz Carlton Hotel, Marina Del Ray, California.

Paul Rosenfeld Ph.D. (June 7-8, 2005). Fate, Transport and Persistence of PFOA and Related Chemicals. *International Society of Environmental Forensics: Focus On Emerging Contaminants*. Lecture conducted from Sheraton Oceanfront Hotel, Virginia Beach, Virginia.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Fate Transport, Persistence and Toxicology of PFOA and Related Perfluorochemicals. *2005 National Groundwater Association Ground Water And Environmental Law Conference*. Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld Ph.D. (July 21-22, 2005). Brominated Flame Retardants in Groundwater: Pathways to Human Ingestion, Toxicology and Remediation. *2005 National Groundwater Association Ground Water and Environmental Law Conference.* Lecture conducted from Wyndham Baltimore Inner Harbor, Baltimore Maryland.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. and Rob Hesse R.G. (May 5-6, 2004). Tert-butyl Alcohol Liability and Toxicology, A National Problem and Unquantified Liability. *National Groundwater Association. Environmental Law Conference*. Lecture conducted from Congress Plaza Hotel, Chicago Illinois.

Paul Rosenfeld, Ph.D. (March 2004). Perchlorate Toxicology. *Meeting of the American Groundwater Trust*. Lecture conducted from Phoenix Arizona.

Hagemann, M.F., **Paul Rosenfeld, Ph.D.** and Rob Hesse (2004). Perchlorate Contamination of the Colorado River. *Meeting of tribal representatives*. Lecture conducted from Parker, AZ.

Paul Rosenfeld, Ph.D. (April 7, 2004). A National Damage Assessment Model For PCE and Dry Cleaners. *Drycleaner Symposium. California Ground Water Association*. Lecture conducted from Radison Hotel, Sacramento, California.

Rosenfeld, P. E., Grey, M., (June 2003) Two stage biofilter for biosolids composting odor control. *Seventh International In Situ And On Site Bioremediation Symposium Battelle Conference* Orlando, FL.

Paul Rosenfeld, Ph.D. and James Clark Ph.D. (February 20-21, 2003) Understanding Historical Use, Chemical Properties, Toxicity and Regulatory Guidance of 1,4 Dioxane. *National Groundwater Association. Southwest Focus Conference. Water Supply and Emerging Contaminants*.. Lecture conducted from Hyatt Regency Phoenix Arizona.

Paul Rosenfeld, Ph.D. (February 6-7, 2003). Underground Storage Tank Litigation and Remediation. *California CUPA Forum*. Lecture conducted from Marriott Hotel, Anaheim California.

Paul Rosenfeld, Ph.D. (October 23, 2002) Underground Storage Tank Litigation and Remediation. *EPA Underground Storage Tank Roundtable*. Lecture conducted from Sacramento California.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Understanding Odor from Compost, *Wastewater and Industrial Processes. Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Suffet, M. (October 7- 10, 2002). Using High Carbon Wood Ash to Control Compost Odor. *Sixth Annual Symposium On Off Flavors in the Aquatic Environment. International Water Association*. Lecture conducted from Barcelona Spain.

Rosenfeld, P.E. and Grey, M. A. (September 22-24, 2002). Biocycle Composting For Coastal Sage Restoration. *Northwest Biosolids Management Association*. Lecture conducted from Vancouver Washington..

Rosenfeld, P.E. and Grey, M. A. (November 11-14, 2002). Using High-Carbon Wood Ash to Control Odor at a Green Materials Composting Facility. *Soil Science Society Annual Conferenc*e. Lecture conducted from Indianapolis, Maryland.

Rosenfeld. P.E. (September 16, 2000). Two stage biofilter for biosolids composting odor control. *Water Environment Federation.* Lecture conducted from Anaheim California.

Rosenfeld. P.E. (October 16, 2000). Wood ash and biofilter control of compost odor. *Biofest.* Lecture conducted from Ocean Shores, California.

Rosenfeld, P.E. (2000). Bioremediation Using Organic Soil Amendments. *California Resource Recovery Association*. Lecture conducted from Sacramento California.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. *Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings*. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., and C.L. Henry. (1999). An evaluation of ash incorporation with biosolids for odor reduction. *Soil Science Society of America*. Lecture conducted from Salt Lake City Utah.

Rosenfeld, P.E., C.L. Henry, R. Harrison. (1998). Comparison of Microbial Activity and Odor Emissions from Three Different Biosolids Applied to Forest Soil. *Brown and Caldwell.* Lecture conducted from Seattle Washington.

Rosenfeld, P.E., C.L. Henry. (1998). Characterization, Quantification, and Control of Odor Emissions from Biosolids Application To Forest Soil. *Biofest.* Lecture conducted from Lake Chelan, Washington.

Rosenfeld, P.E, C.L. Henry, R. Harrison. (1998). Oat and Grass Seed Germination and Nitrogen and Sulfur Emissions Following Biosolids Incorporation With High-Carbon Wood-Ash. Water Environment Federation 12th Annual Residuals and Biosolids Management Conference Proceedings. Lecture conducted from Bellevue Washington.

Rosenfeld, P.E., C.L. Henry, R. B. Harrison, and R. Dills. (1997). Comparison of Odor Emissions From Three Different Biosolids Applied to Forest Soil. *Soil Science Society of America*. Lecture conducted from Anaheim California.

Teaching Experience:

UCLA Department of Environmental Health (Summer 2003 through 20010) Taught Environmental Health Science 100 to students, including undergrad, medical doctors, public health professionals and nurses. Course focused on the health effects of environmental contaminants.

National Ground Water Association, Successful Remediation Technologies. Custom Course in Sante Fe, New Mexico. May 21, 2002. Focused on fate and transport of fuel contaminants associated with underground storage tanks.

National Ground Water Association; Successful Remediation Technologies Course in Chicago Illinois. April 1, 2002. Focused on fate and transport of contaminants associated with Superfund and RCRA sites.

California Integrated Waste Management Board, April and May, 2001. Alternative Landfill Caps Seminar in San Diego, Ventura, and San Francisco. Focused on both prescriptive and innovative landfill cover design.

UCLA Department of Environmental Engineering, February 5, 2002. Seminar on Successful Remediation Technologies focusing on Groundwater Remediation.

University Of Washington, Soil Science Program, Teaching Assistant for several courses including: Soil Chemistry, Organic Soil Amendments, and Soil Stability.

U.C. Berkeley, Environmental Science Program Teaching Assistant for Environmental Science 10.

Academic Grants Awarded:

California Integrated Waste Management Board. $41,000 grant awarded to UCLA Institute of the Environment. Goal: To investigate effect of high carbon wood ash on volatile organic emissions from compost. 2001.

Synagro Technologies, Corona California: $10,000 grant awarded to San Diego State University.
Goal: investigate effect of biosolids for restoration and remediation of degraded coastal sage soils. 2000.

King County, Department of Research and Technology, Washington State. $100,000 grant awarded to University of Washington: Goal: To investigate odor emissions from biosolids application and the effect of polymers and ash on VOC emissions. 1998.

Northwest Biosolids Management Association, Washington State. $20,000 grant awarded to investigate effect of polymers and ash on VOC emissions from biosolids. 1997.

James River Corporation, Oregon: $10,000 grant was awarded to investigate the success of genetically engineered Poplar trees with resistance to round-up. 1996.

United State Forest Service, Tahoe National Forest: $15,000 grant was awarded to investigating fire ecology of the Tahoe National Forest. 1995.

Kellogg Foundation, Washington D.C. $500 grant was awarded to construct a large anaerobic digester on St. Kitts in West Indies. 1993

Deposition and/or Trial Testimony:

In the United States District Court For The District of New Jersey
Duarte et al, *Plaintiffs,* vs. United States Metals Refining Company et. al. *Defendant.*
Case No.: 2:17-cv-01624-ES-SCM
Rosenfeld Deposition. 6-7-2019

In the United States District Court of Southern District of Texas Galveston Division
M/T Carla Maersk, *Plaintiffs,* vs. Conti 168., Schiffahrts-GMBH & Co. Bulker KG MS "Conti Perdido" *Defendant.*
Case No.: 3:15-CV-00106 consolidated with 3:15-CV-00237
Rosenfeld Deposition. 5-9-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
Carole-Taddeo-Bates et al., vs. Ifran Khan et al., Defendants
Case No.: No. BC615636
Rosenfeld Deposition, 1-26-2019

In The Superior Court of the State of California In And For The County Of Los Angeles – Santa Monica
The San Gabriel Valley Council of Governments et al. vs El Adobe Apts. Inc. et al., Defendants
Case No.: No. BC646857
Rosenfeld Deposition, 10-6-2018; Trial 3-7-19

In United States District Court For The District of Colorado
Bells et al. Plaintiff vs. The 3M Company et al., Defendants
Case: No 1:16-cv-02531-RBJ
Rosenfeld Deposition, 3-15-2018 and 4-3-2018

In The District Court Of Regan County, Texas, 112th Judicial District
Phillip Bales et al., Plaintiff vs. Dow Agrosciences, 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-cv-52-DMB-JVM
Rosenfeld Deposition: July 2017

In The Superior Court of the State of Washington, County of Snohomish
Michael Davis and Julie Davis et al., Plaintiff vs. Cedar Grove Composting Inc., Defendants
Case No.: No. 13-2-03987-5
Rosenfeld Deposition, February 2017
Trial, March 2017

In The Superior Court of the State of California, County of Alameda
Charles Spain., Plaintiff vs. Thermo Fisher Scientific, et al., Defendants
Case No.: RG14711115
Rosenfeld Deposition, September 2015

In The Iowa District Court In And For Poweshiek County
Russell D. Winburn, et al., Plaintiffs vs. Doug Hoksbergen, et al., Defendants
Case No.: LALA002187
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Jerry Dovico, et al., Plaintiffs vs. Valley View Sine LLC, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Iowa District Court For Wapello County
Doug Pauls, et al.,, et al., Plaintiffs vs. Richard Warren, et al., Defendants
Law No,: LALA105144 - Division A
Rosenfeld Deposition, August 2015

In The Circuit Court of Ohio County, West Virginia
Robert Andrews, et al. v. Antero, et al.
Civil Action N0. 14-C-30000
Rosenfeld Deposition, June 2015

In The Third Judicial District County of Dona Ana, New Mexico
Betty Gonzalez, et al. Plaintiffs vs. Del Oro Dairy, Del Oro Real Estate LLC, Jerry Settles and Deward DeRuyter, Defendants
Rosenfeld Deposition: July 2015

In The Iowa District Court For Muscatine County
Laurie Freeman et. al. Plaintiffs vs. Grain Processing Corporation, Defendant
Case No 4980
Rosenfeld Deposition: May 2015

In the Circuit Court of the 17th Judicial Circuit, in and For Broward County, Florida
Walter Hinton, et. al. Plaintiff, vs. City of Fort Lauderdale, Florida, a Municipality, Defendant.
Case Number CACE07030358 (26)
Rosenfeld Deposition: December 2014

In the United States District Court Western District of Oklahoma
Tommy McCarty, et al., Plaintiffs, v. Oklahoma City Landfill, LLC d/b/a Southeast Oklahoma City Landfill, et al. Defendants.
Case No. 5:12-cv-01152-C
Rosenfeld Deposition: July 2014

In the County Court of Dallas County Texas
Lisa Parr et al, *Plaintiff*, vs. Aruba et al, *Defendant.*
Case Number cc-11-01650-E
Rosenfeld Deposition: March and September 2013
Rosenfeld Trial: April 2014

In the Court of Common Pleas of Tuscarawas County Ohio
John Michael Abicht, et al., *Plaintiffs,* vs. Republic Services, Inc., et al., *Defendants*
Case Number: 2008 CT 10 0741 (Cons. w/ 2009 CV 10 0987)
Rosenfeld Deposition: October 2012

In the United States District Court of Southern District of Texas Galveston Division
Kyle Cannon, Eugene Donovan, Genaro Ramirez, Carol Sassler, and Harvey Walton, each Individually and on behalf of those similarly situated, *Plaintiffs,* vs. BP Products North America, Inc., *Defendant.*
Case 3:10-cv-00622
Rosenfeld Deposition: February 2012
Rosenfeld Trial: April 2013

In the Circuit Court of Baltimore County Maryland
Philip E. 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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SWAPE Technical Consultation, Data Analysis and Litigation Support for the Environment

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Matthew F. Hagemann, P.G., C.Hg., QSD, QSP

Geologic and Hydrogeologic Characterization
Industrial Stormwater Compliance
Investigation and Remediation Strategies
Litigation Support and Testifying Expert
CEQA Review

Education:

M.S. Degree, Geology, California State University Los Angeles, Los Angeles, CA, 1984.
B.A. Degree, Geology, Humboldt State University, Arcata, CA, 1982.

Professional Certifications:

California Professional Geologist
California Certified Hydrogeologist
Qualified SWPPP Developer and Practitioner

Professional Experience:

Matt has 25 years of experience in environmental policy, assessment and remediation. He spent nine years with the U.S. EPA in the RCRA and Superfund programs and served as EPA's Senior Science Policy Advisor in the Western Regional Office where he identified emerging threats to groundwater from perchlorate and MTBE. While with EPA, Matt also served as a Senior Hydrogeologist in the oversight of the assessment of seven major military facilities undergoing base closure. He led numerous enforcement actions under provisions of the Resource Conservation and Recovery Act (RCRA) while also working with permit holders to improve hydrogeologic characterization and water quality monitoring.

Matt has worked closely with U.S. EPA legal counsel and the technical staff of several states in the application and enforcement of RCRA, Safe Drinking Water Act and Clean Water Act regulations. Matt has trained the technical staff in the States of California, Hawaii, Nevada, Arizona and the Territory of Guam in the conduct of investigations, groundwater fundamentals, and sampling techniques.

Positions Matt has held include:

- Founding Partner, Soil/Water/Air Protection Enterprise (SWAPE) (2003 – present);
- Geology Instructor, Golden West College, 2010 – 2014;
- Senior Environmental Analyst, Komex H2O Science, Inc. (2000 -- 2003);

- Executive Director, Orange Coast Watch (2001 – 2004);
- Senior Science Policy Advisor and Hydrogeologist, U.S. Environmental Protection Agency (1989–1998);
- Hydrogeologist, National Park Service, Water Resources Division (1998 – 2000);
- Adjunct Faculty Member, San Francisco State University, Department of Geosciences (1993 – 1998);
- Instructor, College of Marin, Department of Science (1990 – 1995);
- Geologist, U.S. Forest Service (1986 – 1998); and
- Geologist, Dames & Moore (1984 – 1986).

Senior Regulatory and Litigation Support Analyst:

With SWAPE, Matt's responsibilities have included:

- Lead analyst and testifying expert in the review of over 100 environmental impact reports since 2003 under CEQA that identify significant issues with regard to hazardous waste, water resources, water quality, air quality, Valley Fever, greenhouse gas emissions, and geologic hazards. Make recommendations for additional mitigation measures to lead agencies at the local and county level to include additional characterization of health risks and implementation of protective measures to reduce worker exposure to hazards from toxins and Valley Fever.
- Stormwater analysis, sampling and best management practice evaluation at industrial facilities.
- Manager of a project to provide technical assistance to a community adjacent to a former Naval shipyard under a grant from the U.S. EPA.
- Technical assistance and litigation support for vapor intrusion concerns.
- Lead analyst and testifying expert in the review of environmental issues in license applications for large solar power plants before the California Energy Commission.
- Manager of a project to evaluate numerous formerly used military sites in the western U.S.
- Manager of a comprehensive evaluation of potential sources of perchlorate contamination in Southern California drinking water wells.
- Manager and designated expert for litigation support under provisions of Proposition 65 in the review of releases of gasoline to sources drinking water at major refineries and hundreds of gas stations throughout California.
- Expert witness on two cases involving MTBE litigation.
- Expert witness and litigation support on the impact of air toxins and hazards at a school.
- Expert witness in litigation at a former plywood plant.

With Komex H2O Science Inc., Matt's duties included the following:

- Senior author of a report on the extent of perchlorate contamination that was used in testimony by the former U.S. EPA Administrator and General Counsel.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of MTBE use, research, and regulation.
- Senior researcher in the development of a comprehensive, electronically interactive chronology of perchlorate use, research, and regulation.
- Senior researcher in a study that estimates nationwide costs for MTBE remediation and drinking water treatment, results of which were published in newspapers nationwide and in testimony against provisions of an energy bill that would limit liability for oil companies.
- Research to support litigation to restore drinking water supplies that have been contaminated by MTBE in California and New York.

- Expert witness testimony in a case of oil production-related contamination in Mississippi.
- Lead author for a multi-volume remedial investigation report for an operating school in Los Angeles that met strict regulatory requirements and rigorous deadlines.

- Development of strategic approaches for cleanup of contaminated sites in consultation with clients and regulators.

Executive Director:

As Executive Director with Orange Coast Watch, Matt led efforts to restore water quality at Orange County beaches from multiple sources of contamination including urban runoff and the discharge of wastewater. In reporting to a Board of Directors that included representatives from leading Orange County universities and businesses, Matt prepared issue papers in the areas of treatment and disinfection of wastewater and control of the discharge of grease to sewer systems. Matt actively participated in the development of countywide water quality permits for the control of urban runoff and permits for the discharge of wastewater. Matt worked with other nonprofits to protect and restore water quality, including Surfrider, Natural Resources Defense Council and Orange County CoastKeeper as well as with business institutions including the Orange County Business Council.

Hydrogeology:

As a Senior Hydrogeologist with the U.S. Environmental Protection Agency, Matt led investigations to characterize and cleanup closing military bases, including Mare Island Naval Shipyard, Hunters Point Naval Shipyard, Treasure Island Naval Station, Alameda Naval Station, Moffett Field, Mather Army Airfield, and Sacramento Army Depot. Specific activities were as follows:

- Led efforts to model groundwater flow and contaminant transport, ensured adequacy of monitoring networks, and assessed cleanup alternatives for contaminated sediment, soil, and groundwater.
- Initiated a regional program for evaluation of groundwater sampling practices and laboratory analysis at military bases.
- Identified emerging issues, wrote technical guidance, and assisted in policy and regulation development through work on four national U.S. EPA workgroups, including the Superfund Groundwater Technical Forum and the Federal Facilities Forum.

At the request of the State of Hawaii, Matt developed a methodology to determine the vulnerability of groundwater to contamination on the islands of Maui and Oahu. He used analytical models and a GIS to show zones of vulnerability, and the results were adopted and published by the State of Hawaii and County of Maui.

As a hydrogeologist with the EPA Groundwater Protection Section, Matt worked with provisions of the Safe Drinking Water Act and NEPA to prevent drinking water contamination. Specific activities included the following:

- Received an EPA Bronze Medal for his contribution to the development of national guidance for the protection of drinking water.
- Managed the Sole Source Aquifer Program and protected the drinking water of two communities through designation under the Safe Drinking Water Act. He prepared geologic reports, conducted public hearings, and responded to public comments from residents who were very concerned about the impact of designation.

- Reviewed a number of Environmental Impact Statements for planned major developments, including large hazardous and solid waste disposal facilities, mine reclamation, and water transfer.

Matt served as a hydrogeologist with the RCRA Hazardous Waste program. Duties were as follows:

- Supervised the hydrogeologic investigation of hazardous waste sites to determine compliance with Subtitle C requirements.
- Reviewed and wrote "part B" permits for the disposal of hazardous waste.
- Conducted RCRA Corrective Action investigations of waste sites and led inspections that formed the basis for significant enforcement actions that were developed in close coordination with U.S. EPA legal counsel.
- Wrote contract specifications and supervised contractor's investigations of waste sites.

With the National Park Service, Matt directed service-wide investigations of contaminant sources to prevent degradation of water quality, including the following tasks:

- Applied pertinent laws and regulations including CERCLA, RCRA, NEPA, NRDA, and the Clean Water Act to control military, mining, and landfill contaminants.
- Conducted watershed-scale investigations of contaminants at parks, including Yellowstone and Olympic National Park.
- Identified high-levels of perchlorate in soil adjacent to a national park in New Mexico and advised park superintendent on appropriate response actions under CERCLA.
- Served as a Park Service representative on the Interagency Perchlorate Steering Committee, a national workgroup.
- Developed a program to conduct environmental compliance audits of all National Parks while serving on a national workgroup.
- Co-authored two papers on the potential for water contamination from the operation of personal watercraft and snowmobiles, these papers serving as the basis for the development of nation-wide policy on the use of these vehicles in National Parks.
- Contributed to the Federal Multi-Agency Source Water Agreement under the Clean Water Action Plan.

Policy:

Served senior management as the Senior Science Policy Advisor with the U.S. Environmental Protection Agency, Region 9. Activities included the following:

- Advised the Regional Administrator and senior management on emerging issues such as the potential for the gasoline additive MTBE and ammonium perchlorate to contaminate drinking water supplies.
- Shaped EPA's national response to these threats by serving on workgroups and by contributing to guidance, including the Office of Research and Development publication, Oxygenates in Water: Critical Information and Research Needs.
- Improved the technical training of EPA's scientific and engineering staff.
- Earned an EPA Bronze Medal for representing the region's 300 scientists and engineers in negotiations with the Administrator and senior management to better integrate scientific principles into the policy-making process.
- Established national protocol for the peer review of scientific documents.

Geology:

With the U.S. Forest Service, Matt led investigations to determine hillslope stability of areas proposed for timber harvest in the central Oregon Coast Range. Specific activities were as follows:

- Mapped geology in the field, and used aerial photographic interpretation and mathematical models to determine slope stability.
- Coordinated his research with community members who were concerned with natural resource protection.
- Characterized the geology of an aquifer that serves as the sole source of drinking water for the city of Medford, Oregon.

As a consultant with Dames and Moore, Matt led geologic investigations of two contaminated sites (later listed on the Superfund NPL) in the Portland, Oregon, area and a large hazardous waste site in eastern Oregon. Duties included the following:

- Supervised year-long effort for soil and groundwater sampling.
- Conducted aquifer tests.
- Investigated active faults beneath sites proposed for hazardous waste disposal.

Teaching:

From 1990 to 1998, Matt taught at least one course per semester at the community college and university levels:

- At San Francisco State University, held an adjunct faculty position and taught courses in environmental geology, oceanography (lab and lecture), hydrogeology, and groundwater contamination.
- Served as a committee member for graduate and undergraduate students.
- Taught courses in environmental geology and oceanography at the College of Marin.

Matt taught physical geology (lecture and lab and introductory geology at Golden West College in Huntington Beach, California from 2010 to 2014.

Invited Testimony, Reports, Papers and Presentations:

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Presentation to the Public Environmental Law Conference, Eugene, Oregon.

Hagemann, M.F., 2008. Disclosure of Hazardous Waste Issues under CEQA. Invited presentation to U.S. EPA Region 9, San Francisco, California.

Hagemann, M.F., 2005. Use of Electronic Databases in Environmental Regulation, Policy Making and Public Participation. Brownfields 2005, Denver, Coloradao.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Nevada and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Las Vegas, NV (served on conference organizing committee).

Hagemann, M.F., 2004. Invited testimony to a California Senate committee hearing on air toxins at schools in Southern California, Los Angeles.

Brown, A., Farrow, J., Gray, A. and **Hagemann, M.**, 2004. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to the Ground Water and Environmental Law Conference, National Groundwater Association.

Hagemann, M.F., 2004. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in Arizona and the Southwestern U.S. Presentation to a meeting of the American Groundwater Trust, Phoenix, AZ (served on conference organizing committee).

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River and Impacts to Drinking Water in the Southwestern U.S. Invited presentation to a special committee meeting of the National Academy of Sciences, Irvine, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a tribal EPA meeting, Pechanga, CA.

Hagemann, M.F., 2003. Perchlorate Contamination of the Colorado River. Invited presentation to a meeting of tribal repesentatives, Parker, AZ.

Hagemann, M.F., 2003. Impact of Perchlorate on the Colorado River and Associated Drinking Water Supplies. Invited presentation to the Inter-Tribal Meeting, Torres Martinez Tribe.

Hagemann, M.F., 2003. The Emergence of Perchlorate as a Widespread Drinking Water Contaminant. Invited presentation to the U.S. EPA Region 9.

Hagemann, M.F., 2003. A Deductive Approach to the Assessment of Perchlorate Contamination. Invited presentation to the California Assembly Natural Resources Committee.

Hagemann, M.F., 2003. Perchlorate: A Cold War Legacy in Drinking Water. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. From Tank to Tap: A Chronology of MTBE in Groundwater. Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. A Chronology of MTBE in Groundwater and an Estimate of Costs to Address Impacts to Groundwater. Presentation to the annual meeting of the Society of Environmental Journalists.

Hagemann, M.F., 2002. An Estimate of the Cost to Address MTBE Contamination in Groundwater (and Who Will Pay). Presentation to a meeting of the National Groundwater Association.

Hagemann, M.F., 2002. An Estimate of Costs to Address MTBE Releases from Underground Storage Tanks and the Resulting Impact to Drinking Water Wells. Presentation to a meeting of the U.S. EPA and State Underground Storage Tank Program managers.

Hagemann, M.F., 2001. From Tank to Tap: A Chronology of MTBE in Groundwater. Unpublished report.

Hagemann, M.F., 2001. Estimated Cleanup Cost for MTBE in Groundwater Used as Drinking Water. Unpublished report.

Hagemann, M.F., 2001. Estimated Costs to Address MTBE Releases from Leaking Underground Storage Tanks. Unpublished report.

Hagemann, M.F., and VanMouwerik, M., 1999. Potential Water Quality Concerns Related to Snowmobile Usage. Water Resources Division, National Park Service, Technical Report.

VanMouwerik, M. and **Hagemann, M.F**. 1999, Water Quality Concerns Related to Personal Watercraft Usage. Water Resources Division, National Park Service, Technical Report.

Hagemann, M.F., 1999, Is Dilution the Solution to Pollution in National Parks? The George Wright Society Biannual Meeting, Asheville, North Carolina.

Hagemann, M.F., 1997, The Potential for MTBE to Contaminate Groundwater. U.S. EPA Superfund Groundwater Technical Forum Annual Meeting, Las Vegas, Nevada.

Hagemann, M.F., and Gill, M., 1996, Impediments to Intrinsic Remediation, Moffett Field Naval Air Station, Conference on Intrinsic Remediation of Chlorinated Hydrocarbons, Salt Lake City.

Hagemann, M.F., Fukunaga, G.L., 1996, The Vulnerability of Groundwater to Anthropogenic Contaminants on the Island of Maui, Hawaii. Hawaii Water Works Association Annual Meeting, Maui, October 1996.

Hagemann, M. F., Fukanaga, G. L., 1996, Ranking Groundwater Vulnerability in Central Oahu, Hawaii. Proceedings, Geographic Information Systems in Environmental Resources Management, Air and Waste Management Association Publication VIP-61.

Hagemann, M.F., 1994. Groundwater Characterization and Cleanup at Closing Military Bases in California. Proceedings, California Groundwater Resources Association Meeting.

Hagemann, M.F. and Sabol, M.A., 1993. Role of the U.S. EPA in the High Plains States Groundwater Recharge Demonstration Program. Proceedings, Sixth Biennial Symposium on the Artificial Recharge of Groundwater.

Hagemann, M.F., 1993. U.S. EPA Policy on the Technical Impracticability of the Cleanup of DNAPL-contaminated Groundwater. California Groundwater Resources Association Meeting.

Hagemann, M.F., 1992. Dense Nonaqueous Phase Liquid Contamination of Groundwater: An Ounce of Prevention... Proceedings, Association of Engineering Geologists Annual Meeting, v. 35.

Other Experience:

Selected as subject matter expert for the California Professional Geologist licensing examination, 2009-2011.

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