

Draft Environmental Impact Report

SCH# 2023110442

Volume 1

Chapters 1 through 11

**IPG INDUSTRIAL PROJECT
by IPG Kern County 52 Holdings, LLC
(PP23405)**

Precise Development Plan No. 72, Map No. 102
Zone Variance No. 57, Map No. 102



Kern County
Planning and Natural Resources Department
Bakersfield, CA

March 2025

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Lorelei H. Oviatt, AICP, Director
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**PLANNING AND NATURAL
RESOURCES DEPARTMENT**

Planning
Community Development
Administrative Operations

**NOTICE OF AVAILABILITY FOR PUBLIC REVIEW AND HEARING ON
THE DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE PROPOSED IPG INDUSTRIAL PROJECT**

This is to advise that the Kern County Planning and Natural Resources Department has prepared a Draft Environmental Impact Report (EIR) for the project identified below. As mandated by State law, the minimum public review period for this document is 45 days.

PROJECT TITLE: IPG Industrial Project by IPG Kern County Holdings 52, LLC (PP23405); PD 72, Map 102; ZV 57, Map 102

PROJECT LOCATION: The project site is approximately 1.7 miles north of the City of Bakersfield, in unincorporated Kern County. The project site is located within the Kern County, Metropolitan Bakersfield General Plan (unincorporated Planning Area). The City of Shafter lies approximately 3.1 miles west of the project site, and the unincorporated community of Oildale borders the east side of the project site. The project site is situated approximately 1.4 miles northeast of State Route (SR) 99. The project site is located on the Oildale, California United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map, Township 29 South, Range 27 East, Section 2.

DOCUMENT AVAILABILITY: The Draft EIR and the documents referenced in it are available for public review at the Planning and Natural Resources Department, which is located at 2700 "M" Street, Suite 100, in Bakersfield, CA 93301 or on the Department website at:

<https://kernplanning.com/environmental-doc/ipg-industrial-project>

PUBLIC COMMENT: The required Draft EIR public review period is 45 days.

March 7, 2025 – April 21, 2025

Written comments may be submitted to the project planner identified below prior to the close of the DEIR public review period on **April 21, 2025, at 5:00 p.m.** 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
E-mail: TolentinoM@kerncounty.com

PUBLIC HEARING: A public hearing has been scheduled with the Kern County Board of Supervisors to consider a recommendation on the project and solicit comments on the adequacy and completeness of the analysis and proposed mitigation measures described in the Draft EIR. You may comment by providing testimony at the public hearing on:

DATE: June 17, 2025
TIME: 2:00 P.M. or soon thereafter
LOCATION: Chambers of the Board of Supervisors
Kern County Administrative Center, First Floor
1115 Truxtun Avenue, Bakersfield, CA 93301

Comments may be provided at that hearing or prior to any action by the Board of Supervisors on any matter. The Board of Supervisors' decision is final.

If you challenge the action taken on this request in court, you may be limited to raising only those issues you or someone else raised at this public hearing, or in written correspondence delivered to the Planning and Natural Resources Department at, or prior to, the public hearing.

PROJECT DESCRIPTION: The proposed project would include the development of two single-story logistics facilities totaling approximately 923,130 square-feet (including 15,000 square-feet for dedicated office space) and associated improvements on approximately 49.05 acres of privately owned land in the central portion of unincorporated Kern County.

Implementation of the project as proposed include the following requests:

- **Precise Development Plan (PD No. 72, Map No. 102)** to allow construction and operation of a warehouse distribution and logistics facility within two single-story warehouses totaling 923,130 square feet, with 15,000 square feet of dedicated office space (Sections 19.36.020.E.2 and 19.36.020.D.1) on an approximate 49.05 acre Project site across two parcels in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District at the corner of Boughton Drive and Airport Drive:
 - **Building 1:** 655,690 square feet, including 10,000 square feet of dedicated office space
 - **Building 2:** 267,440 square feet, including 5,000 square feet of dedicated office space
- **Zoning Variance (ZV No. 57, Map No. 102)** to allow construction of a 56-foot-tall warehouse building where 35 feet is authorized (Section 19.76.080) in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District.

ENVIRONMENTAL REVIEW FINDINGS: Anticipated significant and unavoidable impacts on Air Quality, Greenhouse Gases, Noise, and Utilities (Water Supply)

LORELEI H. OVIATT, AICP, Director
Planning and Natural Resources Department

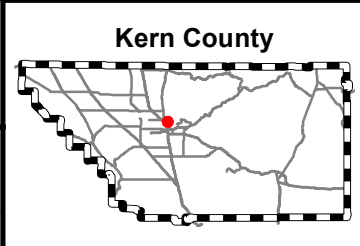
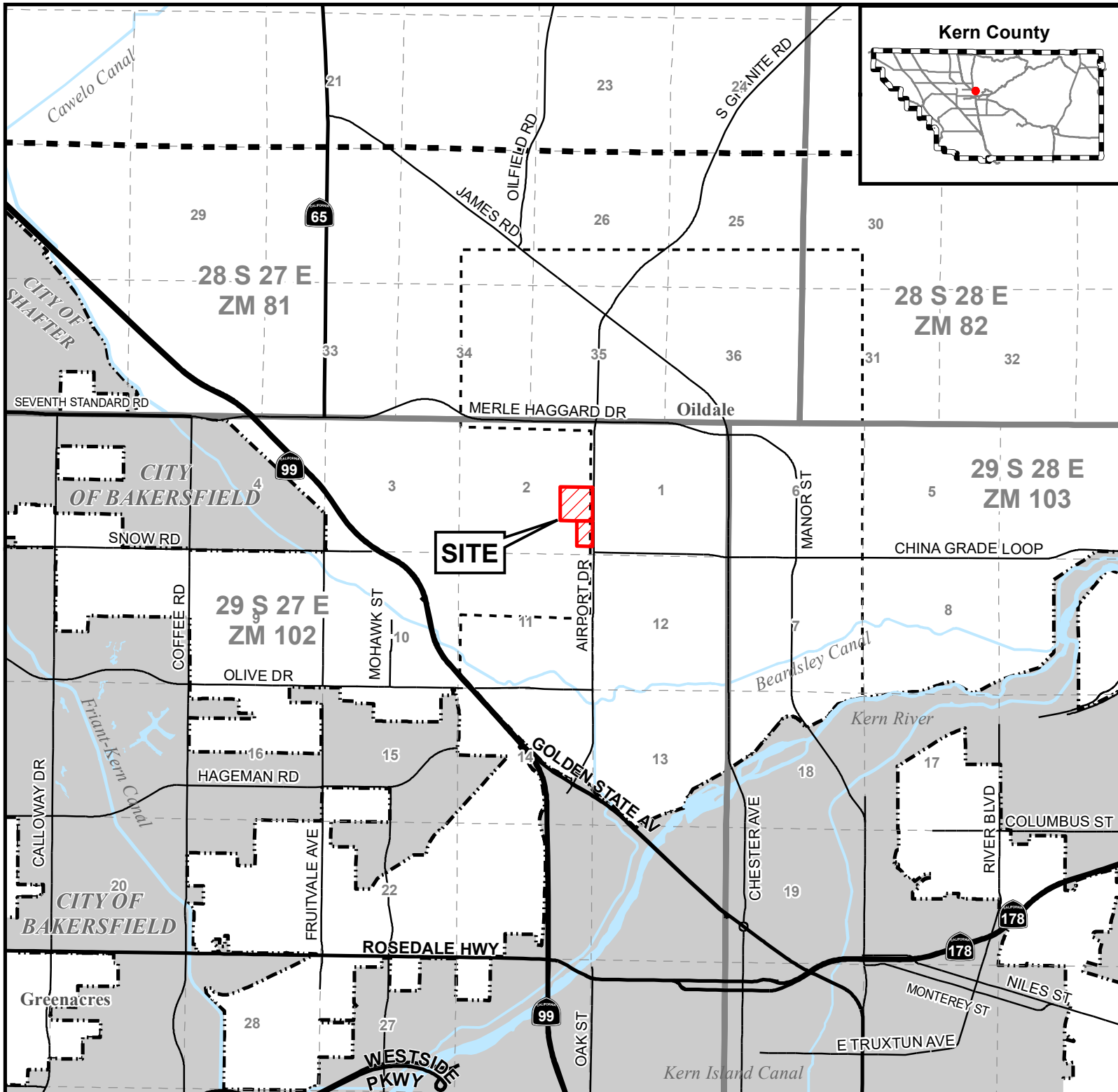
To be published once only on next available date and as soon as possible

THE BAKERSFIELD CALIFORNIAN
THE SHAFTER PRESS

MFT (03/07/25)

cc: County Clerk (2) (with fee)
Environmental Status Board
Supervisory District No. 1

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IPG Industrial Project
by
IPG Kern County 52 Holdings, LLC
PD 72, Map 102; ZV 57, Map 102

Vicinity Map

IPG Kern County 52 Holdings, LLC

- site
- FREEWAY
- NAMED ROAD
- STATE HWY
- Arterials
- Metro Bakersfield GP Boundary
- Township/Range
- Sections
- Water Bodies
- City Limits
- Unincorporated Cities

APN: 492-010-13 & 492-010-17
Sec. 2- T29S/R27E

Created on: 5/3/2023

0 2,100 4,200 6,300 8,400 Feet

N

Kern County
Planning & Natural
Resources Department

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G Kern County Holdings LLC .docx
IPG Kern County Holdings LLC PD 72,
ZV 57, Map 102
cc: 03/07/2025

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

Bakersfield City Planning Dept
1715 Chester Avenue
Bakersfield, CA 93301

Bakersfield City Public Works Dept
1501 Truxtun 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
Caliente/Bakersfield
35126 McMurtrey Avenue
Bakersfield, CA 93308

Federal Aviation Administration
Western Reg Office/
777 South Aviation Boulevard
Suite 150
El Segundo, CA 90245

Federal Communications Comm
18000 Studebaker Road, #660
Cerritos, CA 90701

U. S. Fish & Wildlife Service
Division of Ecological Services
2800 Cottage Way #W-2605
Sacramento, CA 95825-1846

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

U.S. Army Corps of Engineers
Regulatory Division
1325 "J" Street, #1350
Sacramento, CA 95814-2920

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/
Division of Aeronautics, MS #40
P.O. Box 942873
Sacramento, CA 94273-0001

State Dept of Conservation
Director's Office
801 "K" Street, MS 24-01
Sacramento, CA 95814-3528

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

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

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

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

Kern County
Agriculture Department

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

Kern County Airports Department

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
Cary Wright, Fire Marshall

Kern County Library/Beale
Local History Room

Kern County Library/Beale
Andie Sullivan

Kern County Library
Rathbun Branch
200 West China Grade Loop
Bakersfield, CA 93308

Kern County Parks & Recreation

Kern County Sheriff's Dept
Administration

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

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

Beardsley School Dist
1001 Roberts Lane
Bakersfield, CA 93308

Standard School Dist
1200 North Chester Avenue
Oildale, CA 93308

Kern High School Dist
5801 Sundale Avenue
Bakersfield, CA 93309

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

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

Oildale Mutual Water Co
P.O. Box 5638
Bakersfield, CA 93388

North of the River Muni Water Dist
P.O. Box 5638
Bakersfield, CA 93388-5638

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

North Edwards Water Dist
13001 Claymine Road
North Edwards, CA 93523

San Joaquin Valley
Air Pollution Control District
1990 East Gettysburg Avenue
Fresno, CA 93726

Golden Empire Transit
1830 Golden State Avenue
Bakersfield, CA 93301

Kern Mosquito Abatement Dist
4705 Allen Road
Bakersfield, CA 93314

North of the River Rec & Parks Dist
3825 Riverlakes Dr.
Bakersfield, CA 93312

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

Bakersfield Municipal Airport
4101 Truxtun Avenue
Bakersfield, CA 93309

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

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

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

Kern Audubon Society
Attn: Frank Bedard, Chairman
4124 Chardonnay Drive
Bakersfield, CA 93306

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

Verizon California, Inc.
Attention Engineering Department
520 South China Lake Boulevard
Ridgecrest, CA 93555

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

Defenders of Wildlife/
Kim Delfino, California Dir
980 - 9th Street, Suite 1730
Sacramento, CA 95814

Nature Conservancy West Reg Office
201 Mission Street, 4th Floor
San Francisco, CA 94105

Pacific Gas & Electric Co
Matt Coleman, Land Mgt
1918 "H" Street
Bakersfield, CA 93301-4319

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

Southern California Gas Co
35118 McMurtrey Avenue
Bakersfield, CA 93308-9477

Southern California Gas Co
Transportation Dept
9400 Oakdale Avenue
Chatsworth, CA 91313-6511

David Laughing Horse Robinson
P.O. Box 20849
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

Carol Bender
13340 Smoke Creek Avenue
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Indian Wells Valley Groundwater
Authority
500 West Ridgecrest Boulevard
Ridgecrest, CA 93555

LIUNA
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Bakersfield, CA 93386

California Air Resources Board
Industrial Strategic Division
Matthew Bohill, Chief
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Sacramento, CA 95812

A E Corporation
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901 Via Piemonte, 5th Floor
Ontario, CA 91764

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

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

Western States Regional Council of
Carpenters
C/O Mitchell M. Tsai Law Firm
139 South Hudson Avenue
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Pasadena, California 91101

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Leadership Counsel for
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Coachella, CA 92236

Indian Wells Valley Groundwater Authority
500 West Ridgecrest Boulevard
Ridgecrest, CA 93555

Kern River Groundwater
Sustainability Agency
1600 Truxton Avenue
Bakersfield, CA 93301

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Alex Stukan
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South San Francisco, CA 94080-7037

DEPARTMENT OF JUSTICE
1300 I STREET, SUITE 125
P.O. BOX 944255
SACRAMENTO, CA 94244-2550

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.
16569 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

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G Kern County Holdings LLC .docx
IPG Kern County Holdings LLC PD 72,
ZV 57, Map 102
cc: 03/07/2025

491 461 11 00 3
ALDAPE RAUL & LORENA
849 SUNSET MEADOW LN
BAKERSFIELD CA 93308-9237

491 461 10 00 0
AMADOR RICHARD A
843 SUNSET MEADOW LN
BAKERSFIELD CA 93308-9237

491 420 22 00 6
ANGELES LOUIE M & GLENDA T
818 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308

112 020 09 00 9
ANTONINO JOHN C
PO BOX 489
BAKERSFIELD CA 93302

112 040 16 00 5
ASHBY MARY JANETTE
2144 WINGLAND DR
BAKERSFIELD CA 93308-1612

491 461 07 00 2
BAILEY JERROD
829 SUNSET MEADOW LN
BAKERSFIELD CA 93308

112 020 08 00 6
BAKER JOYCE ANN
2131 WINGLAND DR
BAKERSFIELD CA 93308-1611

491 420 12 00 7
BAKER MEDLOCK DELBERT &
LARRY JASON
2501 GARDEN ST
WASCO CA 93280-9833

491 084 04 00 4
BEL COURT APARTMENTS LLC
8020 DEERING AV
CANOGA PARK CA 91304-5010

491 420 11 00 4
BOWER LAWRENCE L
847 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308

491 412 52 00 4
BR PATEL PROP LLC
8714 SKYE ISLE WY
BAKERSFIELD CA 93312

112 040 11 00 0
BRASHEAR FAMILY TRUST
2124 WINGLAND DR
BAKERSFIELD CA 93308-1612

491 491 08 00 4
BRIER INVESTMENTS LLC
12107 HURST PARK DR
BAKERSFIELD CA 93311

112 020 01 00 5
BROWN RUSSEL C & PHYLLIS ANN
1600 AIRPORT DR
BAKERSFIELD CA 93308-2250

491 011 04 00 2
CALIFORNIA RESOURCES
PETROLEUM CORPORATION
27200 TOURNEY RD STE 200
SANTA CLARITA CA 91355-4910

491 492 01 00 0
CAMINI INVESTMENTS LLC
12107 HURTS PARK DR
BAKERSFIELD CA 93311

491 011 15 00 4
CHEVRON LAND & DEVELOPMENT
CO
P O BOX 1392
BAKERSFIELD CA 93302

491 420 16 00 9
CLARK CHARLES S & KAREN E
12708 OVERTON ST
BAKERSFIELD CA 93312

492 010 14 00 1
COUNTY OF KERN
1115 TRUXTUN AV
BAKERSFIELD CA 93301

112 020 05 00 7
DANIEL AMY
2115 WINGLAND DR
BAKERSFIELD CA 93308

112 020 07 00 3
DELGADO ALONDRA
2125 WINGLAND DR
BAKERSFIELD CA 93308-1611

112 020 02 00 8
ENGLE CARLA ERICA
2105 WINGLAND DR
BAKERSFIELD CA 93308

491 420 13 00 0
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855 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308-9833

491 461 08 00 5
FEERO ADRIEN BEAUMONT
835 SUNSET MEADOW LN
BAKERSFIELD CA 93308-9237

491 420 15 00 6
FORDYCE TRACY RICHARD DARREL
& AZARAE MISHEL
850 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308-9833

491 461 09 00 8
GUERRA DAYANARA
839 SUNSET MEADOW LN
BAKERSFIELD CA 93308

491 420 07 00 3
HANDA FAMILY TRUST
1465 AVENIDA DE LOS PADRE
MORGAN HILL CA 95037

112 040 13 00 6
HAWKINS STEVE E
2132 WINGLAND DR
BAKERSFIELD CA 93308

491 420 14 00 3
HUEBNER ANDREW A
854 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308-9833

492 010 13 00 8
IPG KERN CO 52 HOLDINGS LLC
14832 HIGHLAND VALLEY RD
ESCONDIDO CA 92025

491 420 23 00 9
JASSO DEAN E & PERRY HANNAH
814 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308

491 420 08 00 6
KAUR GURMEET
9345 VAL DI CHIANA DR
BAKERSFIELD CA 93314

111 010 02 00 8
KERN CO DEPT OF AIRPORTS
3701 WINGS WY STE 300
BAKERSFIELD CA 93308-7026

491 491 01 00 3
KLASSEN FAMILY LIMITED
PARTNERSHIP
2019 COVERDALE ST
BAKERSFIELD CA 93311

491 491 03 00 9 **DUP**
KLASSEN FAMILY LTD
PARTNERSHIP
2019 COVERDALE ST
BAKERSFIELD CA 93311

491 420 17 00 2
LIVING BRIGHT INVS LLC
19801 WARDLOW LN
HUNTINGTON BEAC CA 92646-3457

491 412 48 00 3
LU WANG KIEN & TERESA THAI FAM
TR
1022 S DANCOVE DR
WEST COVINA CA 91791-3719

491 011 43 00 5
MARCIAL JOSE & MARIA TR
15930 STREBOR DR
BAKERSFIELD CA 93314-9326

491 412 47 00 0
MC DONALD PROP MANAGEMENT
LLC
6006 INVERWOOD DR
BAKERSFIELD CA 93314-8046

112 040 17 00 8
METZNER FLOYD J & JANICE O
2121 DIANE DR
BAKERSFIELD CA 93308-1601

491 420 01 00 5
MILLER CHRISTINA L & SHOFNER
CAREY H JR
761 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308-9815

112 020 03 00 1
MILLER FAMILY TRUST
6305 KELVIN GROVE
BAKERSFIELD CA 93312-6268

491 011 19 00 6
MONTEREY BAKERSFIELD L P
25871 PASEO REAL
MONTEREY CA 93940-2706

491 420 04 00 4
MORTON JESSE W FAM TR
3569 MILITARY AV
LOS ANGELES CA 90034-6103

112 020 11 00 4
NADER DEV INC
828 23RD ST
SANTA MONICA CA 90403

112 040 15 00 2
OILDALE MUTUAL WATER CO
P O BOX 5638
BAKERSFIELD CA 93308

491 412 34 00 2
OUR TAPASYA LLC
3207 HILLTOP DR
VENTURA CA 93003

491 011 06 00 8
PARK MEADOWS LP
140 NEWPORT CENTER DR STE 270
NEWPORT BEACH CA 92660

491 420 09 00 9
PATEL DIVYANG & RUPAL
4681 SETTING SUN DR
EL SOBRANTE CA 94803

112 040 14 00 9
PEDROZA ESTELA OSCAR
407 17TH ST
BAKERSFIELD CA 93301-4917

491 420 21 00 3
PRANDI ELLEN CHARLOTTE TRUST
20878 JACK RD
SARATOGA CA 95070

491 420 05 00 7
RAMOS MARIA M
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BAKERSFIELD CA 93380

491 420 06 00 0
RAYA AGUSTIN RAFAEL
825 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308

491 461 13 00 9
REEVES WILLIAM SHAD
857 SUNSET MEADOW LN
BAKERSFIELD CA 93308-9237

491 461 12 00 6
RIVAS SHANTE
853 SUNSET MEADOW LN
BAKERSFIELD CA 93308

491 420 10 00 1
RUEDA MAURICIO
841 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308-9833

491 420 03 00 1
RUNIA JANICE V TRUST
809 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308

112 020 06 00 0
SALAS ANASTACIO ORTEGA
2119 WINGLAND DR
BAKERSFIELD CA 93308

112 020 10 00 1
SANCHEZ JOSE A & COFFMAN M
RENEE
2143 WINGLAND DR
BAKERSFIELD CA 93308-1611

491 412 49 00 6
SMITH ADOBE RANCH FAMILY L P
1547 34TH AV
SAN FRANCISCO CA 94122

491 420 18 00 5
SORENSEN JOSEPH L
836 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308-9833

491 420 19 00 8
SPARKS PROP LLC
9206 BRUNELLO CT
BAKERSFIELD CA 93314

112 020 04 00 4
STUTZ BROOKE
2113 WINGLAND DR
BAKERSFIELD CA 93308-1611

491 011 42 00 2
TAKSBAK L P
3239 W ASHLAN AV
FRESNO CA 93722

491 420 24 00 2
TAMAYO NORMA CARILLO
808 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308-9833

491 420 02 00 8
TEJADA JULIO & GUADALUPE
803 GREENWOOD MEADOW LN
BAKERSFIELD CA 93308

491 011 05 00 5
TSIBOUKAS CHRIS FAM TR
3301 W ROSECRANS AV
HAWTHORNE CA 90250-8226

492 010 12 00 5
VANDER WEERD INVESTMENTS
837 COMMERCIAL AV
TULARE CA 93274

491 420 20 00 0
VEREBELY SHANGELA D
13089 PEYTON DR APT C176
CHINO HILLS CA 91709-6018

491 540 01 00 0
WEST DAY LLC
6501 FRUITVALE AV
BAKERSFIELD CA 93308-2712

112 040 12 00 3
ZANINOVICH DOMINIC
200 EL CERRITO DR
BAKERSFIELD CA 93305-1304

491 492 08 00 1
13418 LIVINGSTON TR
PO BOX 261
PORT HUENEME CA 93044-0261

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 # 2023110442**Project Title:** IPG Industrial Project by IPG Kern County 52 Holdings, LLC

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: Bakersfield

Cross Streets: Airport Drive & Boughton Drive

Zip Code: 93308

Longitude/Latitude (degrees, minutes and seconds): 35 ° 25 ' 59.3394 " N / 119 ° 2 ' 29.5074 " W Total Acres: 49

Assessor's Parcel No.: 492-010-13 and 492-010-17

Section: 2

Twp.: 29S

Range: 27E

Base: MDBM

Within 2 Miles: State Hwy #: SR-99

Waterways:

Airports: Meadows Field

Railways: BNSF

Schools: Wingland Elementary, North High School

Document Type:CEQA: ☐ NOP☒ Draft EIRNEPA: ☐ NOIOther: ☐ 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. 923,128 Acres 49.05 Employees 437☐ Educational: _____☐ Recreational: _____☐ Water Facilities: Type _____ MGD _____☐ Transportation: Type _____☐ Mining: Mineral _____☐ Power: Type _____ MW _____☐ Waste Treatment: Type _____ MGD _____☐ Hazardous Waste: Type _____☐ Other: _____**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:**

Vacant/Light Industrial Precise Development Airport Approach Height Combining District (M-1 PD H)/ LI (Light Industrial)

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

The proposed project would include the development of two single-story logistics facilities totaling approximately 923,130 square-feet (including 15,000 square-feet for dedicated office space) and associated improvements on approximately 49.05 acres of privately owned land in the central portion of unincorporated Kern County.

Implementation of the project as proposed include the following requests:

- (PD No. 72, Map No. 102) to allow construction and operation an approximate 923,130 square foot warehouse, distribution and logistics facility within two (2) single-story warehouses (Building 1: 655,690 square feet, including 10,000 square foot office area; and Building 2: 267,440 square feet with 5,000 square foot office area) totaling 923,130 square feet, with 15,000 square feet of dedicated office space (Section 19.36.020.E.2 & 19.36.020.D.1) on an approximate 49.05 acre project site across two-(2-) parcels, in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District at the corner of Boughton Drive and Airport Drive.
- Zoning Variance (ZV No. 57, Map No. 102) to allow construction of a 56-foot-tall warehouse building where 35 feet is authorized (Section 19.76.080) in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District.

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

Reviewing Agencies Checklist

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

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

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

Starting Date _____ Ending Date _____

Lead Agency (Complete if applicable):

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

Signature of Lead Agency Representative: _____ /S/ Date: _____

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

Draft Environmental Impact Report

SCH# 2023110442

Volume 1

Chapters 1 through 11

IPG INDUSTRIAL PROJECT by IPG Kern County 52 Holdings, LLC (PP23405)

Precise Development Plan No. 72, Map No. 102
Zone Variance No. 57, Map No. 102



Kern County
Planning and Natural Resources Department
Bakersfield, CA

Technical Assistance by:

WSP USA, Inc.

March 2025

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Chapter 1

Executive Summary

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Chapter 1

Executive Summary

1.1 Introduction

This Draft Environmental Impact Report (EIR) has been prepared by Kern County (County), the California Environmental Quality Act (CEQA) Lead Agency, to identify and evaluate potential environmental impacts associated with implementation of the proposed IPG Industrial Project (Precise Development Plan [PD] No. 72, Map No. 102; Zoning Variance [ZV] No. 57, Map No 102) (Project) by IPG Kern County 52 Holdings, LLC (Project proponent). The Project includes the construction and operation of a 923,130-square-foot warehouse distribution facility and associated improvements necessary to facilitate material handling equipment and storage on a 49.05-acre site.

The Draft EIR provides information about the environmental setting and impacts of the Project and alternatives to the Projects. It informs the public about the Project and its impacts and provides information to meet the needs of local, State, and federal permitting agencies that are required to consider the project. The Kern County will use the Draft EIR to determine whether to approve the requested entitlements.

This Executive Summary does the following:

- Summarizes the requirements of the CEQA Guidelines
- Provides an overview of the Project and alternatives to the Project
- Identifies the purpose of this EIR
- Outlines the potential impacts of the Project and recommended mitigation measures
- Discloses areas of controversy and issues to be resolved

1.2 Project Summary

The Project would include the development of a 923,130-square-foot single-story warehouse distribution facility and associated improvements on approximately 49.05 acres of privately owned land in the central portion of unincorporated Kern County. Implementation of the Project as proposed includes the following requests:

- **Precise Development Plan (PD No. 72, Map No. 102)** to allow construction and operation of a warehouse distribution and logistics facility within two single-story warehouses totaling 923,130 square feet, with 15,000 square feet of dedicated office space (Sections 19.36.020.E.2 and 19.36.020.D.1) on an approximate 49.05 acre Project site across two parcels in the M-1 PD

H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District at the corner of Boughton Drive and Airport Drive:

- **Building 1:** 655,690 square feet, including 10,000 square feet of dedicated office space
- **Building 2:** 267,440 square feet, including 5,000 square feet of dedicated office space
- **Zoning Variance (ZV No. 57, Map No. 102)** to allow construction of a 56-foot-tall warehouse building where 35 feet is authorized (Section 19.76.080) in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District.

1.3 Discretionary Entitlements Required

The Kern County Planning and Natural Resources Department, as the Lead Agency (according to CEQA Guidelines Section 15052) for the Project, has staff responsibility for the preparation of the Draft EIR and recommendations to the Project’s decision-makers.

In addition to the discretionary approvals from the County, it may be necessary to obtain other discretionary entitlements, approvals, or permits from other public agencies with jurisdiction over aspects of the Project. This Draft EIR is also intended for use by responsible and trustee agencies or other agencies that may have jurisdiction, approval authority, or environmental review and consultation requirements for the Project.

While not exhaustive, the list of entitlements applicable to the Project includes the following:

Federal

- Federal Aviation Administration
 - Determination of No Hazard to Aviation

State

- Central Valley Regional Water Quality Control Board (RWQCB)
 - National Pollution Discharge Elimination System (NPDES) Construction General Permit
 - General Construction Stormwater Permit (Preparation of a SWPPP)
- California Department of Transportation (Caltrans)
 - Right-of-Way Encroachment
 - Permit for Transport of Oversized Loads (if required)

Local

- Kern County
 - 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 Precise Development Plan
 - Approval of Zoning Variance
 - Approval of Kern County Grading and Building Permits
 - Approval of Kern County Encroachment Permits
 - Approval of Fire Safety Plan
- San Joaquin Valley Air Pollution Control District
 - Authority to Construct (ATC)
 - Construction Fugitive Dust Control Plan
 - Permit to Operate (PTO)
 - Indirect Source Rule and Voluntary Emission Reduction Agreement
 - Other permits as required

1.4 Draft EIR Purpose and Use

An EIR is a public-information document that is used for planning and decision-making. This project-level Draft EIR analyzes the environmental impacts of the Project. The Kern County Planning Commission and Board of Supervisors will consider the information in this Draft EIR, including public comments and staff responses to those comments, during the public hearing process. The Kern County Board of Supervisors will make a final decision, which may be to approve, conditionally approve, or deny the Project.

The purpose of this Draft EIR is to identify the following:

- The significant potential impacts of the Project on the environment and how these impacts can be avoided or mitigated
- Unavoidable adverse impacts that cannot be mitigated
- Reasonable and feasible alternatives to the Project that would eliminate any significant adverse environmental impacts or reduce the impacts to a less-than-significant level

An EIR also discloses growth-inducing impacts, impacts found not to be significant, and significant cumulative impacts of past, present, and reasonably anticipated future projects. CEQA requires preparation of an EIR that reflects the independent judgment of the Lead Agency regarding the impacts, the level of significance of the impacts both before and after mitigation, and mitigation measures proposed to reduce the impacts.

A Draft EIR is circulated to Responsible Agencies, Trustee Agencies with resources affected by a project, and interested agencies and individuals. Public and agency review of a Draft EIR serves several purposes:

- Sharing expertise
- Disclosing agency analyses
- Checking for accuracy
- Detecting omissions
- Discovering public concerns
- Soliciting counterproposals

Reviewers of a Draft EIR are requested to focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant impacts of a project might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate significant environmental effects.

This Draft EIR is being distributed directly to agencies, organizations, and interested groups and people for comment during a 45-day formal review period in accordance with Section 15087 of the CEQA Guidelines. The Draft EIR process, including how members of the public can comment on this Draft EIR, is discussed further in Chapter 2, *Introduction*.

1.5 Project Overview

This section describes the local and regional setting, surrounding land uses, and the Project's objectives and characteristics. The Project is described in further detail below, with greater detail provided in Chapter 3, *Project Description*.

1.5.1 Regional Setting

Kern County is located between the Sierra Nevada Mountains to the east and the Coastal Range to the west, creating a valley that extends to both mountain ranges, with some foothill areas on the eastern side of the Sierra Nevada. The Project site is located in the central portion of unincorporated Kern County (**Figure 1-1**); approximately 1.7 miles north of the City of Bakersfield; 3.1 miles east of the City of Shafter; adjacent to the unincorporated community of Oildale; and within Section 2 of Township 29S and Range 27E.

1.5.2 Surrounding Land Use and Project Site Conditions

The 49.05-acre Project site comprises two individual parcels within the central portion of unincorporated Kern County. Land uses surrounding the Project site consist of industrial, commercial, transportation, and residential. The Assessor Parcel Numbers (APNs) for the site include 492-101-13 and 492-101-17, as shown in **Table 1-1**. **Table 1-2** identifies the adopted Metropolitan Bakersfield General Plan (MBGP) land use designations and map code designations, and the existing Kern County zoning classifications for the Project site as well as the areas north, south, east, and west of the site. The nearest sensitive receptor to the Project site is the Park Meadows Apartment community located approximately 103 feet east of the Project site.

Table 1-1: Project Assessor Parcel Numbers, Existing Land Uses, and Acreages

Parcel	APN	Zone Map	General Plan	Map Code Designation	Existing Zoning	Acres
1	492-101-13	102	Metro Bakersfield	LI	M-1 PD H	35.17
2	492-101-17	102	Metro Bakersfield	LI	M-1 PD H	13.88
Approximate Project Total Acreage						49.05

Key:

APN = assessor parcel number

LI = Light Industrial

M-1 = Light Industrial

PD = Precise Development

H = Airport Approach Height)

Table 1-2: Project Site and Surrounding Land Uses

	Existing Land Use	Existing Map Code Designation	Existing Zone Classification
Project Site	Vacant	LI	Light Industrial Precise Development Airport Approach Height Combining District (M-1 PD H)
North	Vacant	LI	Light Industrial Precise Development Airport Approach Height Combining District (M-1 PD H)
East	Residential, Storage, Restaurant	MC, GC	General Commercial Precise Development Combining District (C2 PD); High Density Residential – Precise Development Combining (R-3 PD); Medium Density Residential – Precise Development Combining (R-2 PD); Low Density Residential (R-1)
South	Shipping Centers, Transportation services	PT	Medium Industrial Airport Approach Height Combining District (M-2 H)

	Existing Land Use	Existing Map Code Designation	Existing Zone Classification
West	Airport, Transportation Services	PT	Medium Industrial Airport Approach Height Combining District (M-2 H)

Key:

C2 = General Commercial District

GC = General Commercial

H = Airport Approach Height

LI = Light Industrial

MC = Major Commercial

M-1 = Light Industrial

M-2 = Medium Industrial

PD = Precise Development

PT = Public Transportation

R-1 = Low Density Residential

R-2 = Medium Density Residential

R-3 = High Density Residential

1.5.3 Applicant-Provided Project Objectives

State CEQA Guidelines Section 15124(b) requires that a project description includes 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 applicant-submitted objectives for the Project:

- Develop state-of-the-art warehouse and distribution facilities near major transportation corridor
- Meet regional demand for Class A industrial facilities that address local traffic patterns and needs
- Develop a visually appealing industrial project that is consistent with the provisions of the Kern County Zoning Ordinance, Land Division Ordinance, and Development Standards
- Promote land use compatibility with adjacent airport-related uses by developing a warehouse and distribution facility
- Positively contribute to the local economy through new capital investment, the creation of new employment opportunities, expansion of the tax base, economic growth and development, and payment of development fees
- Site an industrial project in a location consistent with current and future market demands and that minimizes conflicts with surrounding uses

1.5.4 Project Characteristics

As noted previously, development would include a 923,130-square-foot warehouse logistics facility with associated site improvements. Development would include the construction of two single-story buildings: Building 1 would total 655,690 square feet, including 10,000 square feet of office space; and Building 2 would total 267,440 square feet with 5,000 square feet of office space. The overall facility would total 923,130 square feet.

The Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage, and logistics uses, with up to 20% of the facility used for cold storage. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage, handling and distribution for varied goods and materials used in commerce

including but not limited to finished products, consumer goods, parts, materials, tires, and tools typically found in a modern distribution/logistics facility consistent with a M-1 PD H Zone District. Any modification to the interior of the building (tenant improvements) would be subject to a plan review and require a building permit to ensure compliance with applicable codes (for example, building, fire, and plumbing codes).

Outdoor storage is not proposed as part of this Project. It is possible that certain allowable goods and products distributed from the Project would require particular fire protection measures with the Fire Department, including tire storage. These improvements would be required as part of the tenant-improvement approval process. However, all proposed uses will be required to comply with the applicable sections of the fire code (and all codes) prior to the issuance of a grading or building permit. The Project site is bounded by Merle Haggard Drive (north), Airport Drive (east), and Hanger Way (west and south), as shown in **Figure 1-1**. The Project would include all applicable site improvements on 49.05 acres of privately owned land, as shown in **Figure 1-2**.

Pursuant to Kern County Zoning Ordinance (KCZO) Section 19.36.020.E.2, the warehouse and distribution facility is permitted on a “by-right” basis; however, due to the inclusion of the Precise Development overlay, Section 19.56.130 requires a precise development plan for the overall Project. In addition, the KCZO requires approval for a variance, as the Project would exceed the building height allowed in the H (Airport Approach Height Combining) District.

Figure 1-2 shows Project components and they are described further in in Chapter 3, *Project Description*.

Figure 1-1: Regional Location

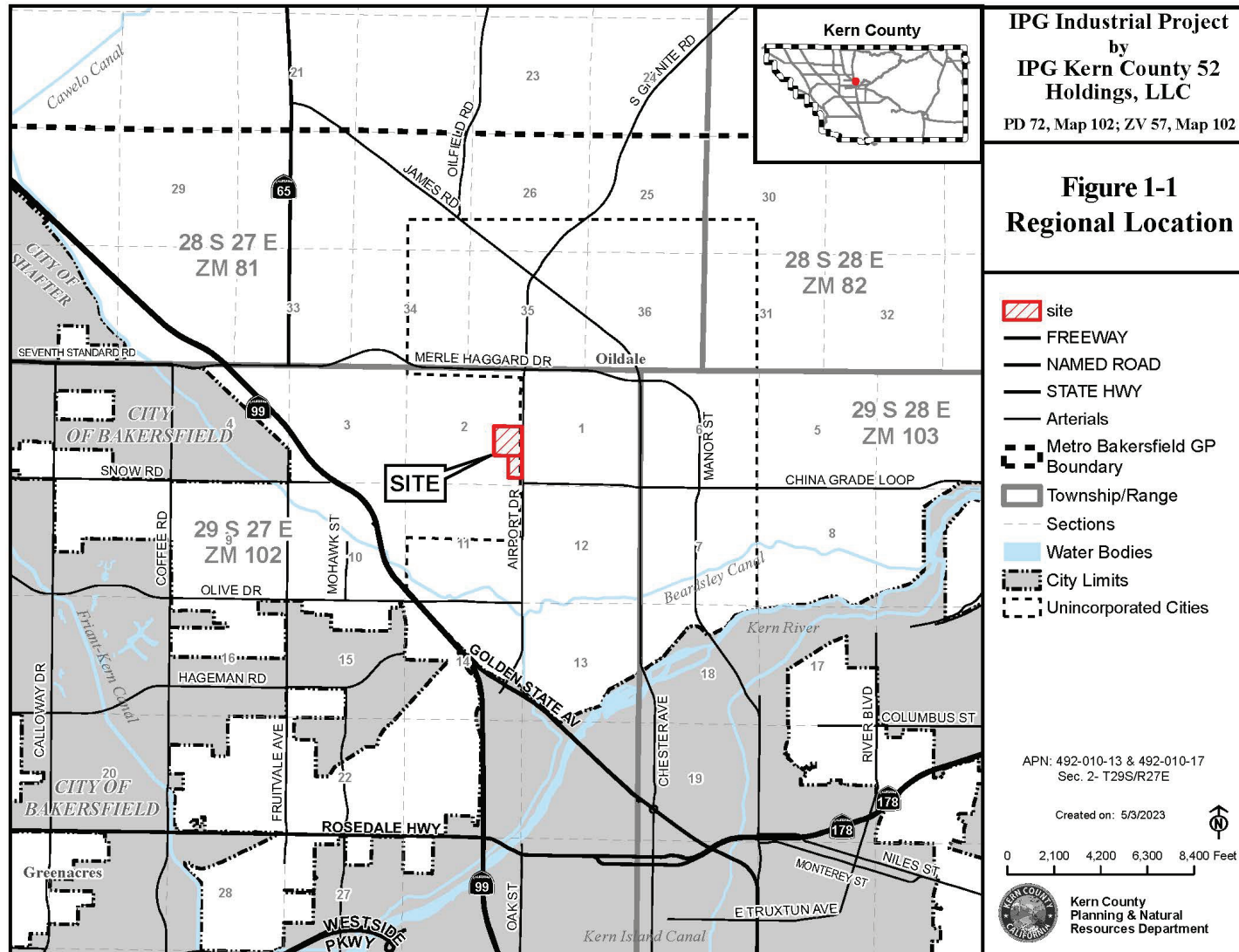
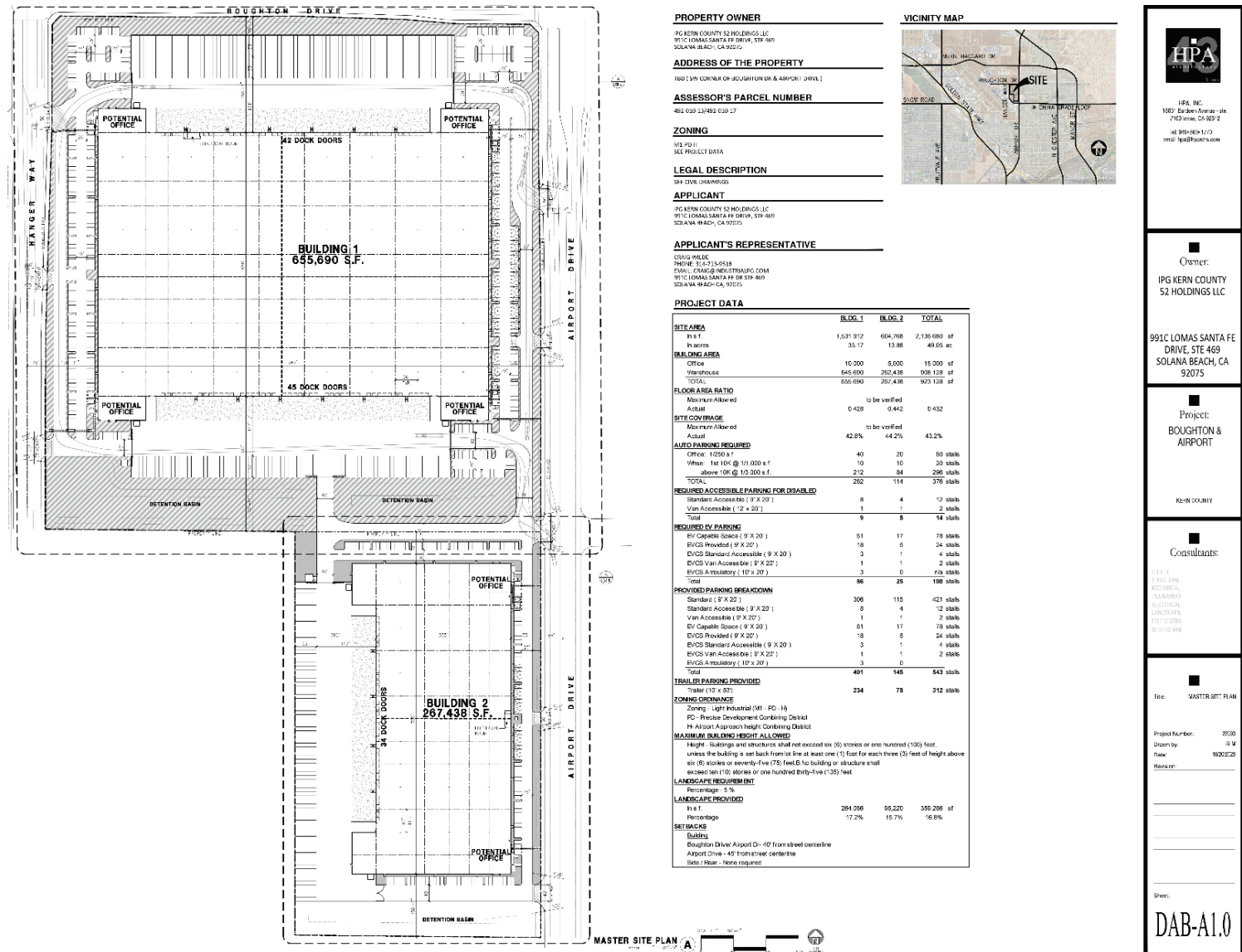


Figure 1-2: Proposed Precise Development Plan – Overall Site Plan



1.6 Environmental Impacts

CEQA Guidelines Section 15128 requires an EIR to contain a statement briefly indicating the reasons why any new and possibly significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR. The County has engaged the public to participate in the scoping of the environmental document.

The contents of this Draft EIR were established based on a Notice of Preparation (NOP) prepared in accordance with the CEQA Guidelines and on public and agency input that was received during the scoping process. Comments received on the NOP are located in Appendix A.2 of this Draft EIR.

1.6.1 Impacts Not Further Considered in this Draft EIR

Based on the findings of the NOP and the results of scoping, a determination was made that this Draft EIR must contain a comprehensive analysis of all environmental issues identified in CEQA Guidelines Appendix G. No resource areas were eliminated from discussion through the initial study.

1.6.2 Impacts of the Project

Sections 4.1 through Section 4.20 in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, provide a detailed discussion of the environmental setting, impacts associated with the Project, and mitigation measures designed to reduce significant impacts to less than significant levels when feasible. The impacts, mitigation measures, and residual impacts for the Project are summarized in **Table 1-3**, located at the end of this chapter, and are discussed further in this subsection.

Impacts related to the following resource areas are evaluated in this Draft EIR for their potential significance:

- Aesthetics and Visual Resources
- Agricultural and Forest 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
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

1.6.3 Environmental Effects Found to be Less Than Significant (Including Significant Impacts that can be Mitigated, Avoided, or Substantially Lessened)

Table 1-3 presents those impacts of the Project that were determined to be less than significant, or less than significant with the implementation of mitigation measures. Less than significant cumulative impacts are also included in this table. Sections 4.1 through 4.17 of this Draft EIR present detailed analysis of these impacts and describe the means by which the mitigation measures listed in **Table 1-3** would reduce impacts to a less than significant level.

Table 1-3: Summary of Project Impacts that are Less than Significant or Less than Significant with Mitigation

Impact	Mitigation Measures
Biological Resources (Project and Cumulative)	MM 4.4-1 through MM 4.4-12, and 4.9-1
Cultural Resources (Project and Cumulative)	MM 4.5-1 through 4.5-3
Energy (Project and Cumulative)	MM 4.3-3, MM 4.6-1, MM 4.6-2, MM 4.8-1 and MM 4.8-2
Geology and Soils (Project and Cumulative)	MM 4.7-1 through MM 4.7-11, and MM 4.10-1
Greenhouse Gas Emissions (Project)	MM 4.3-3, 4.3-5; MM 4.6-1 and MM 4.6-2; 4.8-1 and 4.8-2; MM 4.17-2
Hazards and Hazardous Materials (Project and Cumulative)	MM 4.4-3; MM 4.7-8; MM 4.9-1 through MM 4.9-13; MM 4.15-1; MM 4.17-1 through MM 4.17-5
Hydrology and Water Quality (Project and Cumulative)	MM 4.7-8; MM 4.9-3, MM 4.10-1 and MM 4.10-2; MM 4.19-3 and 4.19-4
Land Use and Planning (Project and Cumulative)	MM 4.1-3; MM 4.11-1 and MM 4.11-4
Noise (Project)	MM 4.1-3; MM 4.13-1 through MM 4.13-4
Population and Housing (Project and Cumulative)	MM 4.15-2
Public Services (Project and Cumulative)	MM 4.9-11; MM 4.15-1 and MM 4.15-2; MM 4.17-1 through MM 4.17-3
Recreation (Project and Cumulative)	None required
Transportation and Traffic (Project)	MM 4.17-1 through MM 4.17-5
Tribal and Cultural Resources (Project and Cumulative)	MM 4.5-1 through MM 4.5-4
Utilities and Service Systems (Project)	MM 4.19-1 through MM 4.19-5
Wildfire (Project and Cumulative)	MM 4.9-11; MM 4.17-1 through MM 4.17-5

1.6.4 Significant and Unavoidable Cumulative Impacts

According to Section 15355 of the CEQA Guidelines, cumulative impacts “refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.” Individual effects that may contribute to a cumulative impact may result from a single project or a number of separate projects. Individually, the impacts

of a project may be relatively minor, but when considered along with impacts of other closely related or nearby projects, including newly proposed projects, the effects could be cumulatively considerable.

This Draft EIR considers the potential cumulative effects of the Project. Impacts for the following issue areas have been found to be cumulatively considerable:

- Air Quality
- Greenhouse Gases
- Noise
- Utilities and Service Systems (water supply)

Each of these significant cumulative impacts is discussed in the applicable sections of Chapter 4, *Environmental Settings, Impacts, and Mitigation Measures*, and are summarized below in **Table 1-4**.

Table 1-4: Summary of Significant and Unavoidable Impacts of the Project

Resources	Project Impacts	Cumulative Impacts
Air Quality	There would be no significant and unavoidable Project impacts. With the implementation of MM 4.3-1 through MM 4.3-5 , the impact would be less than significant.	The Project would have cumulatively significant and unavoidable impacts related to consistency with existing air quality plans as the County does not have jurisdiction and control over all potential projects in the San Joaquin Valley Air Basin and, thus, cannot assure that such projects would fully offset their criteria emissions pursuant to a Developer Mitigation Agreement. Additionally, although the Project would implement Mitigation Measures MM 4.3-1 through MM 4.3-10 , the Project, in combination with all potential projects in the San Joaquin Valley Air Basin, could result in significant levels of criteria pollutants due to the lack of methodology to assess the specific correlation between mass emissions generated and the effect on the public health and welfare. Therefore, it would be speculative to determine how the Project, in combination with all potential projects in the San Joaquin Valley Air Basin would affect the number of days the region is in nonattainment, since mass emissions are not correlated with concentration of emissions or how many additional individuals in the air basin would be affected by the health impacts mentioned. As such, cumulative impacts for criteria pollutants would be considered cumulatively significant and unavoidable .
Greenhouse Gases	There would be no significant and unavoidable Project impacts.	The Project would implement Mitigation Measures MM 4.3-3 and MM 4.3-5 (See Section 4.3, Air Quality), MM 4.6-1 , MM 4.6-2 (see Section 4.6, Energy), MM 4.8-1 , MM 4.8-2 and MM 4.17-3 (see Section 4.17, Transportation and Traffic) to help reduce GHG emissions. However, without clear scientific or other criteria for determining the significance of the Project's contribution to global climate change, it is not possible to

Resources	Project Impacts	Cumulative Impacts
		<p>assess, with certainty, whether the Project's contribution would be cumulatively considerable within the meaning of <i>CEQA Guidelines</i> Sections 15065(a)(3) and 15130. Therefore, cumulative impacts associated with the generation of GHG emissions would be significant and unavoidable, regardless of implementation of the aforementioned mitigation measures, as GHG impacts are exclusively cumulative.</p>
Noise	There would be no significant and unavoidable Project impacts.	<p>The Project itself would result in a less than significant impact and Mitigation Measures MM 4.13-1 through MM 4.13-4 (Section 4.13, Noise, for full mitigation measures) would be implemented, requiring equipment laydown yards to be staged as far as possible from residences, construction equipment to be fitted with approved noise-reduction features, and construction vehicles to limit idling time and speeding on access roads. During operations, Project-level noise emissions would be further mitigated through the implementation of Mitigation Measure MM 4.1-3, as outlined in Section 4.1, Aesthetics, which requires installation of a vegetative barrier along the Airport Drive and Boughton Drive frontages, resulting in both a visual and noise buffer between the industrial operations and nearby residences and sensitive receptors. Project construction activities would generate worker trips per day, vendor trips, and haul truck trips that would result in substantial temporary increases in noise due to increased traffic. The existing baseline plus construction traffic noise levels along the analyzed roadway segments would not increase by a noise level of more than 5 A-weighted decibels, which is considered to be a readily perceivable increase. However, the Project would result in significant and unavoidable cumulative noise-related impacts due to the temporary increase in construction noise. Therefore, even with the implementation of Mitigation Measures MM 4.1-3, and MM 4.13-1 through MM 4.13-4, cumulative noise impacts would still be considered significant and unavoidable.</p>
Utilities and Service Systems	There would be no significant and unavoidable Project impacts.	<p>With implementation of the Project, sufficient groundwater supplies will continue to be available during future normal, dry, and multiple dry years in the County. Regardless, as the Kern County Subbasin is currently over drafted and the District's Groundwater Sustainability Plan has been deemed inadequate, along with the other Kern subbasin plans where the other similar known and unknown projects could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible and reasonable mitigation. Therefore, cumulative impacts related to water supply would be significant and unavoidable, despite implementation of MM 4.19-3, and MM 4.19-4.</p>

1.6.5 Growth Inducement

The MBGP recognizes that certain forms of growth are beneficial, both economically and socially. CEQA Guidelines Section 15126.2(d) identifies a project as growth-inducing if it “would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.”

The Project does not include the construction of housing; therefore, would not result in direct population growth as a result of additional housing. Implementation of the Project would create temporary and permanent employment positions. The Project would require a temporary workforce to construct the warehouse and distribution facility. The on-site construction workforce would consist of up to 503 full-time equivalent jobs; however, the average daily workforce would vary depending upon the stage of construction. During the operational phase, the facility would employ approximately 437 employees over the course of up-to three shifts, with additional indirect/induced economic impacts from the project supporting approximately 159 additional jobs. Construction staff that are not local would likely be housed in existing communities. It is expected that employees would already reside in the area and operation of the Project would not result in a substantial influx of people (such as a new residential development, school, or other use that would result in large volumes of people residing near or traveling to the Project site).

As described in Section 4.14, *Population and Housing*, the unemployment rate in the Project region was 8.9% in June 2024. This regional unemployment rate is still above the California unemployment rate (5.3%) and national average (4.3%). Thus, the temporary and permanent employees required by the Project could come from the surrounding areas without the need for relocation. The Project would not create additional infrastructure or road extensions that would indirectly induce population growth. The Project would promote development consistent with the economic and land use demands of the area, as defined by the goals and policies within the MBGP and would not induce substantial growth.

As described in Section 4.17, *Utilities and Service Systems*, the Project would connect to existing service laterals located along Boughton Drive and Airport Drive for electricity during construction, and water services during construction and operation. Once operational, a substation would provide power generation for the on-site building. Natural gas would not be required for Project operation. The Project would include its own on-site stormwater drainage consisting of inlets, underground piping, and surface and underground basins. The basins would be designed to accommodate a 100-year storm event and would detain runoff and release it at a rate no greater than the pre-development condition of the Project site. Therefore, the Project would not require connection to existing storm drains or wastewater laterals. Because no extension of infrastructure to unserved areas would be required, no removal of physical barriers to growth would occur. In total, the Project is not likely to induce any growth within Kern County.

1.6.6 Irreversible Impacts

Section 15126.2(c) of the CEQA Guidelines defines an irreversible impact as an impact that uses nonrenewable resources during the initial and continued phases of the Project. Irreversible impacts can also result from damage caused by environmental accidents associated with a project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified.

During Project construction, build-out of the Project would commit nonrenewable resources. During Project operations, oil, gas, and other fossil fuels and nonrenewable resources would be consumed, primarily in the form of transportation fuel for Project employees and delivery trucks. The use of water during the construction phase is also required for activities such as dust suppression, soil compaction, and grading activities. Operations of the Project can expect to also require gas and other fossil fuels in the form of transportation fuel for employees, as well as water for operational activities such as landscape irrigation and employee restroom facilities. Therefore, an irreversible commitment of nonrenewable resources would occur as a result of long-term Project operations. However, assuming that those commitments occur in accordance with the adopted goals, policies, and implementation measures of the MBGP, as a matter of public policy, those commitments have been determined to be acceptable. The MBGP ensures that any irreversible environmental changes associated with those commitments will be minimized, to the extent feasible.

Additionally, the Project would be required to adhere to the latest adopted edition of the California Building Code, which includes standards to reduce energy demand, water consumption, wastewater generation, and solid waste generation that would collectively reduce the demand for resources during construction and operation. This would result in the emission and generation of less pollution and effluent and would further lessen the impact of corresponding environmental effects. Although the Project would result in an irretrievable commitment of nonrenewable resources, the commitment of these resources would not be inefficient, unnecessary, or wasteful.

1.7 Alternatives to the Project

Section 15126.6 of the CEQA Guidelines states that an EIR must address “a range of reasonable alternatives to the Project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the Project and evaluate the comparative merits of the alternatives.” Based on the significant and unavoidable impacts of the project, the aforementioned objectives established for the project, and the feasibility of the alternatives considered, a range of alternatives is analyzed in the next subsection and discussed in detail in **Chapter 6, Alternatives**, of this Draft EIR.

1.7.1 Alternatives Considered and Rejected

Kern County considered several alternatives to reduce the project's significant and unavoidable impacts. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (CEQA Guidelines Section 15126(f)(2)). Kern County considered several alternatives to reduce impacts to air quality (cumulative), biological resources (cumulative), greenhouse gases (cumulative) hydrology and water quality (cumulative groundwater supply), and utilities and service systems (cumulative water supply). Per CEQA, the Lead Agency may make an initial determination as to which alternatives are feasible and warrant further consideration, and which are infeasible.

The following alternatives were initially considered but were eliminated from further consideration in this EIR because they do not meet project objectives or were infeasible.

The Infill Alternative was considered and rejected, due to there being no suitable infill sites for the size of the land area or existing land use designation and zoning located in Kern County for the Project, and impacts would potentially be more significant.

The Transit-Oriented Alternative was considered and rejected, due to there being no suitable transit-oriented sites within Kern County for the Project.

1.7.2 Alternatives Selected for Analysis

Alternatives that would avoid or substantially lessen any of the significant effects of the project and feasibly attain most of the basic project objectives are evaluated, below. The alternatives are discussed with respect to their relationship to the Project's objectives. Kern County has considered the following two alternatives, which are also identified in **Table 1-3** and discussed individually as follows:

- Alternative 1 – “No Project” Alternative
- Alternative 2 – Reduced Size: One Parcel (APN: 492-101-13) – One Building (Building 1)
- Alternative 3 – Eastern Kern/Mojave Specific Plan Project Alternative Site

Alternative 1: “No Project” Alternative

The CEQA Guidelines require EIRs to include a No Project Alternative for the purpose of allowing decision-makers to compare the effects of approving the Project versus a No Project Alternative. Accordingly, Alternative 1, the No Project Alternative, assumes that the development of the proposed warehouse would not occur. The No Project Alternative would not require the PD or a ZV for construction and operation of a warehouse distribution facility and associated improvements. Under the No Project Alternative, the Project site would maintain the current zoning, land use classifications, and existing undisturbed land surrounded by industrial and commercial uses. No physical changes would be made to the Project site.

Alternative 2 – Reduced Footprint Alternative

Alternative 2, the Reduced Footprint Alternative, would develop the proposed alternative at the same Project site with a footprint reduced by approximately 30%. Under this alternative, only Building 1 would be constructed, with a site area of 35.17 acres featuring a 655,690 square foot warehouse with 10,000 square feet dedicated to office space. This approach would decrease the overall development footprint, as well as reduce the number of employee and truck trips, traffic congestion, and emissions compared to the Project, along with a proportionate amount of demand for water, energy, utilities, and other resources. However, it would still require the same entitlements as the Project.

Alternative 3 – Eastern Kern/Mojave Specific Plan Alternative Site

Alternative 3, the Eastern Kern/Mojave Specific Plan Project Alternative Site, proposes the same Project development and operation of a 923,130 square feet warehouse distribution facility and associated improvements on approximately 49.05 acres, but in a different area of Kern County, specifically eastern Kern County, within the adopted Mojave Specific Plan (Mojave Specific Plan 2003). The intention of this Project alternative is to find a Project site adjacent to major freeway access, non-agricultural land use, and reduce required travel distances for distribution trucks and thereby related impacts to aesthetics, air quality, biological resources, and greenhouse gas emissions associated with the Project. Alternative 3 would develop the same land area and all of the Project components.

The Mojave Specific Plan (2003) encompasses approximately 31,000 acres in eastern Kern County, including the unincorporated community of Mojave, and functions as the transportation and aviation hub of eastern Kern County. Impacts to water supply usage would be reduced to less than significant because the Mojave Specific Plan water basin is not subject to any adjudication or Groundwater Management Sustainability Act (GSMA). This alternative would be located in the Mojave Desert, rather than the San Joaquin Valley. Alternative 3 would also include improvements to off-site roadways, utilities, water treatment facilities, gas lateral extensions, storm drainage systems, and associated infrastructure, similar to the Project.

The Specific Plan area has direct access off State Route 58 (SR 58), which connects into the Riverside – San Bernadino and Ontario Metropolitan transportation corridors and connects to State Highway 14 (Antelope Valley Freeway) with direct access to Southern California Interstate 5 into the City of Los Angeles and San Diego. The East Kern Air Pollution Control District is responsible for regional air quality of the area and is considered to be in attainment for emissions, while the SJVAPCD is in nonattainment for O₃ (8-hour) and PM_{2.5} (federal) and O₃ (1-hour and 8-hour), PM₁₀, and PM_{2.5} (State).. Approval of Alternative 3 would be required to comply with the Mojave Specific Plan and entitlements for the Project, which would be dependent on the site selected within the planning area. As a Specific Plan with an existing Final Environmental Impact Report, CEQA streamlining would be available for Alternative 3.

Table 1-5 and **Table 1-6** both summarize the full Alternatives discussion provided in **Chapter 6** of this Draft EIR.

Table 1-5: Summary of Development Alternatives

Alternative	Description	Basis for Selection and Summary of Analysis
The Project	The Project would include the development of a 923,130 square feet warehouse distribution facility and associated improvements on approximately 49.05 acres located in the central portion of unincorporated Kern County. The facility contains two single-story buildings: one building (Building 1) would total approximately 655,690 square feet and the second (Building 2) would total 267,440 square feet, with a total of 15,000 square feet for office space.	N/A
Alternative 1: No Project Alternative	No development would occur on the Project site. The Project site would remain unchanged.	<ul style="list-style-type: none"> • Required by CEQA • Avoids need for approval of ZV and PD Plan • Avoids all significant and unavoidable impacts • Less impact in all remaining environmental issue areas • Does not meet any of the Project objectives
Alternative 2: Reduced Footprint	Alternative 2, the Reduced Footprint Alternative, would develop the proposed alternative at the same Project site with a footprint reduced by approximately 30%. Under this alternative, only Building 1 would be constructed, with a site area of 35.17 acres featuring a 655,690 square foot warehouse with 10,000 square feet dedicated to office space.	<ul style="list-style-type: none"> • Requires the same PD Plan and ZV • Reduces impacts to aesthetics, air quality, cultural resources, energy, geology and soils, noise, transportation and traffic, and tribal cultural resources due to the reduced footprint. • Reduces environmental impacts associated with operational traffic, and associated air, noise and GHG emissions by approximately 30% • Meets Project objectives to lesser extent than the Project
Alternative 3: Eastern Kern/Mojave Specific Plan Project Alternative Site	Alternative 3, the Eastern Kern/Mojave Specific Plan Project Alternative Site, proposes the same project development and operation of a 923,130 square feet warehouse distribution facility and associated improvements on approximately 49.05 acres, but in a different area of Kern County, specifically eastern Kern County in the adopted Mojave Specific Plan (Mojave Specific Plan 2003).	<ul style="list-style-type: none"> • Greater impacts to Biological Resources • Similar impacts in all remaining environmental issue areas • Meets all Project objectives

Table 1-6: Summary Comparison of Alternative Impacts

Issue Area	Project Summary of Impacts	Alternative 1 No Project	Alternative 2 Reduced Footprint Alternative	Alternative 3 Alternative Site
Aesthetics and Visual Resource	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Agricultural and Forest Resources	No Impact	Similar (NI)	Similar (NI)	Similar (NI)
Air Quality	Significant and unavoidable (cumulative)	Less (NI)	Less (SU)	Similar (SU)
Biological Resources	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Greater (SU)
Cultural Resources	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Energy	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Geology and Soils	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Greenhouse Gas Emissions	Significant and unavoidable (cumulative)	Less (NI)	Similar (SU)	Less (SU)
Hazards and Hazardous Materials	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Hydrology and Water Quality	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Land Use and Planning	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Mineral Resources	Less than significant	Less (NI)	Similar (LTS)	Greater (SU)
Noise	Significant and unavoidable (cumulative)	Less (NI)	Less (SU)	Similar (SU)
Population and Housing	Less than significant	Less (NI)	Similar (NI)	Similar (LTS)
Public Services	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Recreation	Less than significant	Less (NI)	Similar (LTS)	Similar (LTS)
Transportation and Traffic	Less than Significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)

Issue Area	Project Summary of Impacts	Alternative 1 No Project	Alternative 2 Reduced Footprint Alternative	Alternative 3 Alternative Site
Tribal Cultural Resources	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Utilities and Service Systems	Significant and unavoidable (cumulative – water supply)	Less (NI)	Similar (SU)	Similar (LTS)
Wildfire	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Meet Project Objectives?	All	None	Most	All
Reduce Significant and Unavoidable Impacts	N/A	All	Partially	Some

NI = No Impact

LTS = Less Than Significant

SU = Significant and Unavoidable

1.7.3 Environmentally Superior Alternative

As presented in the comparative analysis above, and as shown in **Table 1-6** there are a number of factors in selecting the environmentally superior alternative. An EIR must identify the environmentally superior alternative to the Project. Alternative 1, the No Project Alternative, would be environmentally superior to the Project on the basis of its minimization or avoidance of physical environmental impacts. However, CEQA Guidelines Section 15126.6(e)(2) states:

The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Because the No Project Alternative cannot be the Environmentally Superior Alternative under CEQA, the Environmentally Superior Alternative is considered to be Alternative 3: Alternative Site. When compared to the Project, Alternative 3 would result in similar impacts across all environmental resources, excluding *Biological Resources* and *Greenhouse Gas Emissions*, as Alternative 3 would generate a lessened impact due to the Mojave air basin’s emissions attainment status and due to the widely undeveloped nature of East Kern lending itself to greater impacts on potential habitat for sensitive desert species. However, the significant and unavoidable impacts on a cumulative level for *Utilities and Service Systems* that would result from the Project would be reduced to less than significant levels under Alternative 3 since the Mojave Specific Plan is not within a groundwater basin that is subject to any adjudication or GSMA, nor considered over drafted.

It should be noted that the project proponent lacks immediate control and access to such an alternative site location and although all project objectives could be met, as discussed above, such project objectives could not be met within the same time frame and/or with the same efficiency as the current proposal forecasts. The project proponent would be required to identify and secure land use authority over such an alternative site location, whether by purchasing or leasing the land, and subsequently must apply for land use entitlements and conduct environmental review.

1.8 Areas of Known Controversy

Areas of controversy were identified through written agency and public comments received during the scoping period. Public comments received during the scoping period are summarized in Chapter 2, *Introduction*, and provided in Appendix A. In summary, the following issues were identified during scoping and are addressed in the appropriate sections of Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*:

- Air quality concerns for criteria pollutants and relation to sensitive receptors

- Construction and operational GHG emissions
- Temporary noise increases from construction
- Water supply availability

1.9 Issues to Be Resolved

Section 15123(b) (3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, which include the choices among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved regarding a project include decisions by the Lead Agency:

- Determine whether the Draft EIR adequately describes the environmental impacts of a project
- Select a preferred choice among alternatives
- Determine whether the recommended mitigation measures should be adopted or modified
- Determine whether additional mitigation measures need to be applied to a project

1.10 Summary of Environmental Impacts and Mitigation

Section 15123 of the *CEQA Guidelines* requires that an EIR contain a brief summary of the proposed actions and its consequences. **Table 1-7** below, summarizes the environmental impacts of the project, mitigation measures, and unavoidable significant impacts identified and analyzed in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this Draft EIR.

Table 1-7: Draft EIR Impacts, Mitigation Measures, and Level of Impacts After Mitigation

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.1 Aesthetics and Visual Resources			
Impact 4.1-1: The project would have a substantial adverse effect on a scenic vista.	No impact	No mitigation would be required.	No impact
Impact 4.1-2: The project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.	No impact	No mitigation would be required.	No impact
Impact 4.1-3: The project would, in nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings. (Public views are those that are experienced from publicly accessible vantage points.) If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality.	Potentially significant	<p>MM 4.1-1: Prior to the issuance of building permits for the proposed project, the project proponent/operator shall submit a proposed color scheme and treatment plan, for review and approval by the Kern County Planning and Natural Resources Department, that will ensure all project facilities blend in with the colors found in the surrounding landscape. All color treatments shall result in matte or nonglossy finishes.</p> <p>MM 4.1-2: Prior to the issuance of building permits, site plans submitted for warehouse buildings located within 1,000 feet of the Boughton Drive and Airport Drive corridors shall include the following aesthetic features:</p> <ol style="list-style-type: none"> Rooftop screening features, such as a parapet or screening material, to create a visual screen for rooftop mechanical equipment. Reflective metal shall not be used as exterior architectural elements on buildings immediately adjacent to Boughton Drive and Airport Drive. Entry gates to the loading truck court must be positioned to allow a minimum of 50 feet of available stacking depth inside the property line. The stacking depth would increase by 70 feet for every 20 loading bays and beyond 50 loading bays, to the extent feasible. Anti-idling signs must be installed at truck loading sites, the entrance to the development, and at all heavy-duty truck exit driveways directing drivers to the proper truck route. 	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>MM 4.1-3: Prior to the issuance of building permits for any facilities on the project site, the proponent/operator applicant shall submit to the Kern County Planning and Natural Resources Department for approval a landscape plan that complies with the Kern County Zoning Ordinance requirements in Chapter 19.86 - Landscaping.</p> <p>The plan shall include:</p> <ol style="list-style-type: none"> Preparation by a licensed Landscape Architect; California native, drought-tolerant plants; An irrigation plan as required under the Kern County Zoning Ordinance 19.86.070; A vegetation barrier shall be installed along the Boughton Drive and Airport Drive frontages of the project site. The vegetation barrier shall consist of multiple rows of trees and shrubs, a 10-foot-high berm, a decorative wall, or a combination thereof. Final design shall be submitted for review and approval by the Director of the Planning and Natural Resources Department. The vegetation barrier shall: <ol style="list-style-type: none"> Be a minimum of 15 feet high (at full maturity) or a minimum of 3 feet above the decorative wall. The wall shall be between 6 and 8 feet high. Be a minimum 30-foot-wide perimeter buffer along any visible boundary from the Boughton Drive and Airport Drive; Achieve porosity between .5 to .9 at full maturity and shall maintain porosity during all seasons. Consist of multiple types of species to prevent plant mono-cultures. Use of coniferous trees, and/or trees comprised of waxy and/or hairy leaf surfaces with leaf and branch structure that provide increased surface areas is encouraged. Species composition shall include, but not be limited to, the following: <ol style="list-style-type: none"> Consist of evergreen, drought tolerant species of low biogenic emissions (e.g. low pollen, etc.), a minimum of 36-inch box size at time of installation 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>and spaced no greater than 40 feet apart.</p> <p>B. One (1) tree having a minimum planting height of six (6) feet for every 40 lineal feet of buffer;</p> <p>C. Palm trees, deciduous trees, and monocarpic, and annual plants shall not be allowed to satisfy this requirement.</p> <p>D. Evergreen shrubs which reach a minimum height of four (4) to six (6) feet.</p> <p>E. Live ground cover consisting of low-height plants, or shrubs, or grass shall be planted in the portion of the landscaped area not occupied by trees or evergreen shrubs.</p> <p>F. Bare gravel, rock, bark or other similar materials may be used, but are not a substitute for ground cover plantings, and shall be limited to no more than 25 percent of the required landscape area.</p> <p>G. Consist of species that are native, non-invasive and non-poisonous</p> <p>1. Be maintained and consistent throughout all seasons and climatic conditions for the life of the project. Vegetation maintenance for the vegetation barrier shall include tree and shrub replacement in the event of die-off, disease or damage due to accidents</p> <p>2. Maximum height shall be maintained to comply with the H (Airport Approach Height) District, Section 19.76.080 or within the specified maximum height limit for an approved Zone Variance that is active for this project;</p> <p>3. Designed to preserve safe lines-of-sight and viewshed standards for drivers on the road.</p> <p>4. Be installed prior to final occupancy.</p> <p>5. After year 1 of planting, the Project proponent shall submit documentation to the Kern County Planning and Natural Resources Department indicating successful species survival and rate of porosity growth. This shall be</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>achieved through photo documentation and/or reporting of maintenance logs and growth rates to be submitted each spring, preferably after shrubs have begun to leaf out, but, if necessary, could be conducted any time during the summer. Documentation shall be submitted each year for the first five (5) years or until the vegetation reaches maturity, whichever occurs first, in order for Kern County Planning and Natural Resources Department to confirm all growth has successfully reached maturity level.</p> <p>e. Should perimeter fencing be proposed, fencing materials shall be constructed of any materials commonly used in the construction of fences and walls such as wood, stone, rock, tubular steel, wrought iron, or brick, or other durable materials. Masonry block walls shall be decorative and not bare masonry blocks. Decorative materials can include a façade, colored masonry blocks, or other materials. Fencing proposed around sumps shall be chain-link with view obscuring slats.</p>	
Impact 4.1-4: The project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.	Potentially significant impact	MM 4.1-4: Prior to issuance of building permits, the project proponent shall demonstrate to Kern County Planning and Natural Resources Staff, through the submittal of a lighting plan, that the project site will continuously comply with the applicable provisions of the Outdoor Lighting - Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance), and shall be designed to provide the minimum illumination needed to achieve safety and security objectives. All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass onto adjacent properties and roadways. Lenses and bulbs shall not extend below the shields.	Less than significant
Impact 4.1: Cumulative Impacts	Potentially significant impact	Implementation of MM 4.1-1 through MM 4.1-4 is required.	Less than significant
4.2 Agriculture and Forestry Resources			
Impact 4.2-1: The project would Convert	No impact	No mitigation would be required.	No impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.			
Impact 4.2-2: The project would conflict with existing zoning for agricultural use or Williamson Act Contract.	No impact	No mitigation would be required.	No impact
Impact 4.2-3: The project would conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined in Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).	No impact	No mitigation would be required.	No impact
Impact 4.2-4: The project would result in the loss of forestland or conversion of forest land to non-forest use.	No impact	No mitigation would be required.	No impact
Impact 4.2-5: The project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use.	No impact	No mitigation would be required.	No impact
Impact 4.2-6: The project would result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of	No impact	No mitigation would be required.	No impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
100 or more acres (Section 15206(b)(3)) Public Resources Code.			
Impact 4.2: Cumulative Impacts	No impact	No mitigation would be required.	No impact
4.3 Air Quality			
Impact 4.3-1: The project would conflict with or obstruct implementation of the applicable air quality plan.	Potentially significant impact	<p>MM 4.3-1: The project shall continuously comply with applicable rules and regulations set forth by the San Joaquin Valley Air Pollution Control District.</p> <p>MM 4.3-2: Prior to issuance of grading permits, the project proponent shall provide to the Kern County Planning and Natural Resources Department a site-specific Dust Control Plan approved by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The Dust Control Plan shall include name(s), address(es), and phone number(s) of person(s) responsible for the preparation, submission, and implementation of the plan; a description and location of operation(s); and a listing of all fugitive dust emission sources. The site-specific Dust Control Plan shall take into consideration grading and construction schedule, seasonal winds, site-specific wind patterns, and soil conditions to ensure adequate measures are implemented to manage fugitive dust. The following shall be included where applicable and feasible and is not to be considered all-inclusive; and any other measures to reduce fugitive dust emissions not listed shall be encouraged:</p> <ol style="list-style-type: none"> a. Land Preparation, Excavation and/or Demolition. The following dust control measures shall be implemented: <ol style="list-style-type: none"> 1. Identify a comprehensive grading schedule for the entire project site. When feasible, grading activities shall be phased and minimized to those areas necessary for project access and installation of project features. 2. All onsite unpaved roads and offsite unpaved access roads shall be stabilized using water or chemical soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than California Air 	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Resources Board approved soil stabilizers, and that shall not increase any other environmental impacts including loss of vegetation.</p> <ol style="list-style-type: none"> 3. All soil excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. Watering shall take place a minimum of twice daily on unpaved/untreated roads and on disturbed soil areas with active operations. 4. All clearing, grading, earth moving, and excavation activities shall cease during periods of winds greater than 20 miles per hour (averaged over one hour), if disturbed material is easily windblown, or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property. 5. Stockpiles of dirt or other fine loose material shall be stabilized by watering or other appropriate method to prevent windblown fugitive dust. 6. Where acceptable to the Kern County Fire Department, weed control shall be accomplished by mowing instead of disking, thereby, leaving the ground undisturbed and with a mulch covering. <p>b. Site Construction. After clearing, grading, earth moving and/or excavating is completed within any portion of the project sites, the following dust control practices shall be implemented:</p> <ol style="list-style-type: none"> 1. Once initial leveling has ceased, all temporality open and inactive soil areas within the construction site shall be (1) seeded and watered until plant growth is evident, (2) treated with a dust palliative, or (3) watered twice daily until soil has sufficiently crusted to prevent fugitive dust emissions. 2. Dependent on specific site conditions (season and wind conditions), revegetation shall occur in those areas so planned as soon as practical after installation of the solar 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>panels. A native seed mix of grass and flowers shall also be added to the spread topsoil to enhance regrowth.</p> <p>3. 3. All active disturbed soil areas shall be sufficiently watered at least twice daily or have dust palliatives applied to prevent excessive dust</p> <p>c. Vehicular Activities. During all phases of construction, the following vehicular control measures shall be implemented:</p> <ol style="list-style-type: none"> 1. On-site vehicle speed shall be limited to 15 miles per hour on unpaved roads. 2. All areas with vehicle traffic shall be paved, treated with dust palliatives or watered a minimum of twice daily. 3. Streets adjacent to the project sites shall be kept clean, and project-related accumulated silt shall be removed. 4. Access to the project sites shall be by means of an apron into the project sites from adjoining surfaced roadways. The aprons shall be surfaced or treated with dust palliatives. If operating on soils that cling to the wheels of vehicles, a grizzly, wheel washer, or other such device shall be used on the road exiting the project sites, immediately prior to the pavement, in order to remove most of the soil material from vehicle tires. 5. Track-out debris onto public paved roads shall not extend 50 feet or more from an active operation and track-out shall be removed or isolated such as behind a locked gate at the conclusion of each workday, except on agricultural fields where speeds are limited to 15 mph. 6. All hauling materials should be moist while being loaded into dump trucks. 7. Drop heights when loaders dump soil into trucks shall not exceed 5 feet above the truck. 8. Soil loads should be kept below 6 inches or the freeboard of the truck. 9. All haul trucks hauling fine material (soil, sand, other 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>loose material) off-site on public roads shall be either sufficiently watered or securely covered to prevent excessive dust.</p> <p>10. Gate seals should be tight on dump trucks.</p> <p>MM 4.3-3: The project proponent and/or its contractors shall continuously implement the following measures during construction and operation of the project to control emissions from the on-site equipment:</p> <ul style="list-style-type: none"> a. All equipment shall be maintained in accordance with the manufacturer's specifications. b. All equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five (5) minutes. c. Construction equipment shall not operate longer than eight (8) cumulative hours per day without prior written authorization provided by the Kern County Planning and Natural Resources Department. d. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions. e. On-road and off-road diesel equipment shall use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines. f. All on-site off-road equipment and on-road vehicles shall meet the recent California Air Resources Board engine emission standards or alternatively fueled equipment, such as compressed natural gas, liquified natural gas, or electric, as appropriate. g. Tier 4 engines shall be used on all equipment when available. <p>MM 4.3-4: To reduce demand for gas-powered landscape maintenance equipment, all required landscaping along major and arterial roadways will be designed with native drought-resistant species (plants, trees, and bushes).</p> <p>MM 4.3-5: Prior to the issuance of grading permits, the Owner/Operator shall enter into a Developer Mitigation Agreement (DMA) (synonymous with a Voluntary Emissions Reduction</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>Impact 4.3-2: The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Specifically, implementation of the project would exceed any of the following adopted thresholds:</p> <ul style="list-style-type: none"> a. San Joaquin Valley Unified Air Pollution Control District Operational and Area Sources: <ul style="list-style-type: none"> • 10 tons per year for ROG • 10 tons per year for NO_x • 15 tons per year for PM₁₀. b. Stationary Sources as Determined by District Rules <ul style="list-style-type: none"> • Severe Nonattainment: 25 tons per year 	Potentially Significant	<p>Agreement) with the San Joaquin Valley Air Pollution Control District. The DMA is to fully mitigate construction and operations criteria air emissions of project implementation for project vehicle and other mobile source emissions. The Owner/Operator shall pay fees to fully mitigate project emissions of NO_x (oxides of nitrogen), ROG (reactive organic gases), PM₁₀ (particulate matter of 10 microns or less in diameter), and PM 2.5 (particulate matter of 2.5 microns or less in diameter) (collectively referred to as “designated criteria emissions”) to avoid any net increase in these pollutants. The air quality mitigation fee shall be paid prior to the approval of any construction or grading approval or payment plan as designated by the San Joaquin Valley Air Pollution Control District.</p> <p>Implementation of Mitigation Measures 4.1-3 (See Section 4.1, Aesthetics), and MM 4.3-1 through MM 4.3-5 would be required.</p>	Significant and unavoidable

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<ul style="list-style-type: none"> Extreme Nonattainment: 10 tons per year 			
Impact 4.3-3: The project would expose sensitive receptors to substantial pollutant concentrations.	Potentially significant impact	Implementation of Mitigation Measures MM 4.3-1 through MM 4.3-5 would be required.	Less than significant
		<p>MM 4.3-6: To minimize personnel and public exposure to potential Valley Fever—containing dust on and off site, the following control measures shall be implemented during project construction:</p> <ol style="list-style-type: none"> Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved offsite to other work locations. Wherever possible, grading and trenching work shall be phased so that earth-moving equipment is working well ahead or downwind of workers on the ground. The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area. In the event that a water truck runs out of water before dust is sufficiently dampened, ground workers exposed to dust shall leave the area until a truck can resume water spraying. To the greatest extent feasible, heavy-duty earth-moving vehicles shall be closed-cab and equipped with a HEPA-filtered air system. Workers shall receive training in procedures to minimize activities that may result in the release of airborne <i>Coccidioides immitis</i> (CI) spores and recognize the symptoms of Valley Fever and shall be instructed to promptly report suspected symptoms of work-related Valley Fever to a supervisor. Evidence of training shall be provided to the Kern County Planning and Natural Resources Department within 5 days of the training session. A Valley Fever informational handout shall be provided to all onsite construction personnel and surrounding residences within 1000 feet of the project site. The handout shall, at a minimum, provide information regarding symptoms, health effects, preventative measures, and treatment of Valley Fever. No less than 30 days prior to any work commencing, this handout shall be 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>mailed to all existing residences within 1000 feet of the project boundaries. Additional information and handouts can be obtained by contacting the Kern County Public Health Services Department.</p> <p>h. Onsite personnel shall be trained on the proper use of personal protective equipment, including respiratory equipment. National Institute for Occupational Safety and Health-approved respirators shall be provided to onsite personnel, upon request. When exposure to dust is unavoidable, affected workers shall be provided appropriate NIOSH-approved respiratory protection. If respiratory protection is deemed necessary, employers must develop and implement a respiratory protection program in accordance with the California Occupational Safety and Health Administration's Respiratory Protection standard (8 CCR 5144).</p> <p>MM 4.3-7: Prior to the issuance of grading permits, a one-time fee shall be paid to the Kern County Public Health Services Department in the amount of \$3,200 for Valley Fever public awareness programs.</p> <p>MM 4.3-8: At the time of project implementation, a COVID-19 Health and Safety Plan shall be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. A copy of the COVID-19 Health and Safety Plan shall be submitted to the Kern County Planning Department to be kept on file.</p> <p>MM 4.3-9: Prior to commencement of any on-site construction activities (i.e., fence construction, mobilization of construction equipment, initial grading), the project applicant shall provide written notice to the public through mailing a notice to all parcels within 1,000 feet of the project site, as well as the resident manager of the California Aeronautical University Student Housing at the western terminus of Boughton Drive, no sooner than 15 days prior to construction activities. The notices shall include the construction schedule, a telephone number and email address where complaints and questions can be registered. Additionally, a minimum of one sign, legible at a distance of 50 feet, shall also be posted at the construction sites or adjacent to the nearest public access to the main construction entrances throughout</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>construction activities which include the construction schedule (updated as needed) and a telephone number where complaints can be registered. Documentation that the public notice has been sent and the sign has been posted shall be provided to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.3-10: Prior to the issuance of any grading or building permit, the project applicant shall establish a “construction coordinator” and submit written documentation which includes their phone number, email address and mailing address. The construction coordinator shall be responsible for the following:</p> <ul style="list-style-type: none"> a. Responding to any local complaints about construction activities. The construction coordinator shall determine the cause of the construction complaint and shall be required to implement reasonable measures such that the complaint is resolved. b. Ensuring all appropriate construction notices have been made available to the public and that all appropriate construction signs have been installed. c. Maintaining an ongoing up-to-date log of all construction-related complaints (i.e., blowing dust, inability to access parcels, etc.) during project construction activities. The log shall include the nature of the complaint and the measures that were undertaken to address the concerns. Upon request, the construction coordinator shall provide the log to the Planning and Natural Resources Department no later than three business days from request. 	
Impact 4.3-4: The project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.	Less than significant impact	No mitigation would be required.	Less than significant
Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.3-1 through MM 4.3-10 would be required.	Significant and unavoidable (cumulative impacts)

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.4 Biological Resources			
Impact 4.4-1: The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or a special-status species in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	Potentially significant impact	<p>MM 4.4-1: Prior to the issuance of grading permits, the project operator shall retain a Lead Biologist(s) who meets the qualifications of an Authorized Biologist as defined by California Department of Fish and Wildlife (CDFW) Service to oversee compliance with protection measures for all listed and other special-status species that may be affected by the construction and operation of the project. The resume and contact information for the Lead Biologist(s) shall be provided in writing to the Planning and Natural Resources Department.</p> <p>The following measures pertain to the Lead Biologist(s):</p> <ol style="list-style-type: none"> The Lead Biologist(s), or their designee, shall be on the project site during all construction activities which include, but are not limited to, installation of perimeter fencing, clearing of vegetation, grading activities, and facility construction. The Lead Biologist(s) or their designee shall have the right to halt all activities that are in violation of the special-status species protection measures, as well as any regulatory permits from the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife, if applicable. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk. <p>MM 4.4-2: Prior to the issuance of grading permits, the Lead Biologist shall develop a Worker Environmental Awareness Training Program containing life history and identification information of special-status wildlife and plant species with potential to occur on site. The Worker Environmental Awareness Training Program shall review responsibilities for all on-site personnel including trash control, checking under and around vehicles and heavy equipment before starting, scanning for wildlife resources, contacting the Lead Biologist in the unanticipated instance of encountering special status wildlife species, and prohibition of pets and firearms. All on-site personnel shall be required to attend a worker environmental training. A sticker shall be placed on hard hats, indicating that the worker has completed the</p>	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Worker Environmental Awareness Training. Copies of all prepared materials including, but not limited to, PowerPoint presentations, videos, information handouts and signed acknowledgement from each worker who has attended the required training shall be provided to the Planning and Natural Resources Department.</p> <p>MM 4.4-3: During construction of the project site, the project proponent and/or contractor(s) shall implement the following general avoidance and protective measures:</p> <ol style="list-style-type: none"> Immediately prior to conducting vegetation clearing or similar activities, the Lead Biologist or their designee shall perform a pre-construction visual survey of the area to ensure that no special-status species are present. Daily reports of these inspections shall be retained by the Lead Biologist and provided to the Kern County Planning and Natural Resources Department, U.S. Fish and Wildlife Service, or California Department Fish and Wildlife upon request. Within the vicinity of any construction activities, sensitive biological resources (i.e., special-status species, jurisdictional drainages, nesting birds, etc.) shall be delineated with stakes and/or flagging. All construction activities shall be confined within the project construction area, which may include temporary access roads, haul roads, and staging areas specifically designated and marked for these purposes. At no time shall equipment or personnel be allowed to adversely affect areas outside the project site. Any spoils shall be stockpiled in disturbed areas that lack native vegetation to the maximum extent practicable. Spoils that have been stockpiled and inactive for more than 24 hours shall be inspected by a qualified biologist for signs of special-status wildlife before moving or disturbing. To prevent inadvertent entrapment of San Joaquin kit foxes, American badgers, or other animals during construction, all excavated steep-walled holes or trenches more than two (2) feet deep shall be covered with plywood or similar materials at the close of each working day. If holes or trenches cannot be covered, 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>one or more escape ramps constructed of earthen fill or wooden planks, no less than 12 inches wide and secured at the top, shall be placed a minimum of every 100 feet within the open trench. Covered and non-covered holes or trenches shall be thoroughly inspected for trapped animals by a qualified biologist at the beginning and end of each working day. Immediately before such holes or trenches are filled, they shall again be thoroughly inspected by trained Staff approved by the Lead Biologist. If any trapped animals are observed, escape ramps or structures shall be installed immediately to allow for their escape. If a listed species is trapped, the Lead Biologist shall immediately confer with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.</p> <p>f. All construction pipes, culverts, or similar structures with a diameter of four (4) inches or greater that are stored at the site for more than 24 hours and without endcaps shall be thoroughly inspected by a qualified biologist prior to being moved or capped. If a listed wildlife species is discovered inside a pipe, that section of pipe shall not be moved until a qualified biologist has been consulted and the animal has either moved from the structure on its own accord or until the animal has been captured and relocated in conformance with appropriate wildlife agency guidelines.</p> <p>g. No construction vehicle or equipment parked on the project site shall be moved prior to inspecting the ground beneath the vehicle or equipment for the presence of listed wildlife species. If present, the animal shall be left to move on its own.</p> <p>h. A speed limit of 15 miles per hour shall be enforced within the limits of the project site. If night work occurs on the project site, the speed limit will be 10 miles per hour.</p> <p>i. Fueling of construction equipment shall take place within existing roads or disturbed areas. No refueling within or adjacent to drainages (within 150 feet) shall be permitted. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary.</p> <p>j. Trash and food items shall be contained in closed containers to</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.</p> <ul style="list-style-type: none"> k. Workers shall be prohibited from bringing pets and firearms to the project site and from feeding wildlife. l. No pets shall be allowed in project areas, except for trained canine animals related to security and operation of the facility. m. Intentional killing or collection of any listed plant or wildlife species shall be prohibited. n. Herbicides that may be used as vegetation control measures in project areas shall be applied in accordance with submeasures below. All uses of such herbicidal compounds shall observe label and other restrictions mandated by the U.S Protection Agency, California Department of Food and Agriculture, and state/federal legislation as well as additional project related restrictions deemed necessary by the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife. <ul style="list-style-type: none"> 1. The construction contractor or project personnel shall use herbicides that are approved by the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) for use in California and are appropriate for application adjacent to natural vegetation areas (i.e., nonagricultural use). Personnel applying herbicides shall have all appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use. 2. Herbicides shall be mixed and applied in conformance with the manufacturer's directions. 3. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used. To minimize harm to wildlife, vegetation, and water bodies, herbicides shall not be applied directly to wildlife. 4. Products identified as non-toxic to birds and small 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>mammals shall be used if nests or dens are observed; and herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water.</p> <p>5. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated.</p> <p>6. A written record of all herbicide applications on the site, including dates and amounts, shall be furnished annually to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.4-4: No more than (30) days prior to the issuance of any grading permits or the start of ground disturbance, a qualified biologist knowledgeable in the identification of all special-status wildlife species shall conduct a pre-construction survey of areas proposed for disturbance within the project site and 500-foot buffer (where legally accessible) to determine if any special-status species are present. If, as a result of this pre-construction survey it is determined that special-status wildlife species are present, the project proponent shall confer with the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife, as required by applicable law, for proper avoidance measures or the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision (d).</p> <p>MM 4.4-5: No more than thirty (30) days prior to the start of ground disturbance activities or issuance of any grading permits, a qualified biologist knowledgeable on the identification of rare plant species shall conduct a pre-construction plant survey of areas of proposed disturbance within the project site and 100-foot buffer (where legally accessible) to determine if any special-status plant species are present. If special-status plants are identified on-site, their locations shall be mapped and the project proponent shall confer with CDFW or USFWS</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>as required by applicable law to facilitate salvage or seed collection.</p> <p>MM 4.4-6: If construction activities are conducted during the typical nesting bird season (February 15 through September 15), pre-construction surveys shall be conducted by a qualified biologist prior to any site preparation and/or construction activity to identify potential nesting bird activity. The survey area shall include a 500-foot buffer surrounding the property. Swainson's hawk protocol-level surveys shall be consistent with the survey methods developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC 2000); If no active nests are found within the survey area, no further mitigation is required. If nesting activity is identified during the pre-construction survey process, the following measures will be implemented:</p> <ol style="list-style-type: none"> If active nest sites of bird species protected under the Migratory Bird Treaty Act and/or California Fish and Game Code are observed within the project site, then the project will be modified and/or delayed as necessary to avoid direct take of the identified nests, eggs, and/or young; If active nest sites of raptors and/or bird species of special concern are observed within the vicinity of the project site, then the appropriate buffer around the nest site (typically 250 feet for passerines and 500 feet for raptors) will be established. Construction activities in the buffer zone will be prohibited until the young have fledged the nest and achieved independence; and, Active nests shall be documented by a qualified biologist, and a letter report shall be submitted to the Kern County Planning and Natural Resources Department documenting project compliance with the Migratory Bird Treaty Act and California Fish and Game Code. <p>MM 4.4-7: Pre-construction protocol-level surveys by a qualified biologist for nesting birds shall be required if construction activities are scheduled to occur during the breeding season for raptors and other migratory birds (February 1– August 31), to reduce potential impacts to nesting birds and raptors. The survey shall be conducted within 30 days of ground disturbance activities.</p> <ol style="list-style-type: none"> If any nesting birds/raptors are observed, a qualified biologist shall 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>determine buffer distances and/or the timing of project activities so that the proposed project does not cause nest abandonment or destruction of eggs or young. This measure shall be implemented so that the proposed project remains in compliance with the Migratory Bird Treaty Act and applicable State regulations.</p> <p>MM 4.4-8: Prior to any vegetation removal during site preparation, the areas required for construction shall be surveyed for actively nesting birds. If any wildlife is encountered during the course of construction, the wildlife shall be allowed to leave the construction area unharmed. Should any active bird nests be identified, the vegetation shall not be removed in areas that contain actively nesting birds. A biological monitor shall survey the areas of vegetation slated for removal, a report shall be submitted to the Kern County Planning and Natural Resources Department for review prior to site preparation.</p> <p>MM 4.4-9: Preconstruction surveys shall be conducted by a qualified biologist to locate active breeding or wintering burrowing owl burrows no fewer than 14 days prior to commencement of ground-disturbing activities. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 14 days prior to that portion of the project site disturbed.</p> <p>The survey methodology shall be consistent with the methods outlined in the 2012 California Department of Fish and Wildlife (CDFW) Staff Report on Burrowing Owl Mitigation and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. As each burrow is investigated, surveying biologists shall also look for signs of American badger and San Joaquin kit fox. Copies of the survey results shall be submitted to CDFW and the Kern County Planning and Natural Resources Department.</p> <p>If burrowing owls are detected onsite, the avoidance buffers outlined below should be established. These buffers shall be implemented prior to and during any ground-disturbing activities. Specifically, CDFW's Staff Report recommends that impacts to occupied burrows be avoided</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation																							
		<p>in accordance with the following table unless a qualified biologist, approved by CDFW, verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Visible markers shall be placed near the identified burrow(s) to ensure that machinery does not collapse the burrow(s).</p> <table><tr><th rowspan="2">Location</th><th rowspan="2">Time of Year</th><th colspan="3">Level of Disturbance</th></tr><tr><th>Low</th><th>Med</th><th>High</th></tr><tr><td>Nesting sites</td><td>April 1 – Aug 15</td><td>200 m*</td><td>500 m</td><td>500 m</td></tr><tr><td>Nesting sites</td><td>Aug 16 – Oct 15</td><td>200 m*</td><td>200 m</td><td>500 m</td></tr><tr><td>Nesting sites</td><td>Oct 16 – Mar 31</td><td>50 m</td><td>100 m</td><td>500 m</td></tr></table> <p>*meters (m)</p> <p>If burrow avoidance is infeasible during the non-breeding season or during the breeding season (February 1 through August 31) where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, a qualified biologist shall implement a passive relocation program in accordance with Appendix E1 (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 CDFW Staff Report on Burrowing Owl Mitigation.</p> <p>If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and a Mitigation Land Management Plan in, accordance with the 2012 CDFW Staff Report on Burrowing Owl Mitigation, for review by CDFW prior to passive relocation activities. If applicable, the Mitigation Land Management Plan shall include a requirement for the permanent conservation of offsite Burrowing Owl Passive Relocation Compensatory Mitigation. At a minimum, the following recommendations shall be implemented:</p> <ul style="list-style-type: none">a. Temporarily disturbed habitat shall be restored, if feasible, to pre-project conditions including decompacting soil and revegetating.b. Permanent impacts to nesting, occupied and satellite burrows	Location	Time of Year	Level of Disturbance			Low	Med	High	Nesting sites	April 1 – Aug 15	200 m*	500 m	500 m	Nesting sites	Aug 16 – Oct 15	200 m*	200 m	500 m	Nesting sites	Oct 16 – Mar 31	50 m	100 m	500 m	
Location	Time of Year	Level of Disturbance																								
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Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>and/or burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows and burrowing owl impacted are replaced based on a site-specific analysis and shall include permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals.</p> <p>c. Permanently protect mitigation land through a conservation easement, deed restriction, or similar mechanism deeded to a nonprofit conservation organization or public agency with a conservation mission. If the project is located within the service area of a CDFW-approved burrowing owl conservation bank, the project operator may purchase available burrowing owl conservation bank credits. Land identified to mitigate for passive relocation of burrowing owl may be combined with other offsite mitigation requirements of the proposed project if the compensatory habitat is deemed suitable to support the species.</p> <p>MM 4.4-10: Prior to and during construction activities:</p> <p>a. If any San Joaquin kit fox dens are found during pre-construction surveys, the status of the dens shall be evaluated no more than 14 days prior to project ground disturbance. Provided that no evidence of kit fox occupation is observed, potential dens shall be marked and a 50-foot avoidance buffer delineated using stakes and flagging or other similar material to prevent inadvertent damage to the potential den. If a potential den cannot be avoided, it may be hand-excavated following United States Fish and Wildlife Service standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance by the lead biologist. If kit fox activity is observed at a den, the den status shall change to “known” per United States Fish and Wildlife Service guidelines (1999), and the buffer distance shall be increased to 100 feet. Absolutely no excavation of San Joaquin kit fox known or pupping dens shall occur without prior authorization from the United States</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Fish and Wildlife Service and California Department of Fish and Wildlife.</p> <ul style="list-style-type: none"> b. To enable kit foxes and other wildlife (e.g., American badger) to pass through the project site during construction, the perimeter security fence shall leave a 5-inch opening between the fence mesh and the ground or the fence shall be raised 5 inches above the ground. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that passes under the fence. c. All pipes, culverts, or similar structures with a diameter of four inches or more that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the United States Fish and Wildlife Service has been consulted. If necessary, under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity until the fox has escaped. d. To prevent inadvertent entrapment of San Joaquin kit foxes, badgers, or other animals during construction, all excavated, steep-walled holes or trenches more than two feet deep shall be covered with plywood or similar materials at the close of each working day, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If trapped animals are observed, escape ramps or structures shall be installed immediately to allow escape. If listed species are trapped, the United States Fish and Wildlife Service and California Department of Fish and Wildlife shall be contacted. e. All vertical tubes used in project construction, such as chain link fencing poles shall be temporarily or permanently capped at the time they are installed to avoid the entrapment and death of special-status birds. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>MM 4.4-11: A qualified biologist shall conduct a survey for Crotch's bumble bee and their requisite habitat using the California Department of Fish and Wildlife -approved protocol during the blooming period immediately prior to project construction to detect bumble bees and potential nesting sites. The survey shall be conducted within a survey area that includes a 50-foot buffer around the Project footprint and results submitted to California Department of Fish and Wildlife at least seven (7) days prior to commencing any project activities. If Crotch's bumble bee is identified during surveys or at any time during Project construction, the project proponent shall confer with California Department of Fish and Wildlife to determine if take can be avoided. If avoidance of Crotch's bumble bee nest(s) is not feasible, take authorization prior to ground disturbing activities is warranted. Ake authorization would occur through issuance of an Incidental Take Permit by California Department of Fish and Wildlife, pursuant to Fish and Game Code section 2081(b). Alternatively, in the absence of surveys, the project proponent may assume presence and apply for and acquire an Incidental Take Permit for Crotch's bumble bee prior to initiating project activities.</p> <p>MM 4.4-12: If nighttime lighting for construction activities and operations is required and is within 50 feet of the outside edge of areas containing habitat for special-status wildlife, as determined by the qualified biologist, lighting shall be directed away from those areas that contain habitat for special-status wildlife.</p>	
Impact 4.4-2: The project could have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.	No impact	No mitigation would be required.	No impact
Impact 4.4-3: The project would have a substantial adverse effect on federally protected wetlands (including, but not	No impact	No mitigation would be required.	No impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.			
Impact 4.4-4: The project would interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.	Potentially significant impact	Implementation of Mitigation Measures MM 4.4-3, MM 4.4-6, MM 4.4-7 and MM 4.4-8.	Less than significant
Impact 4.4-5: The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.	Less than significant impact	Implementation of Mitigation Measures MM 4.4-1 through MM 4.4-12, and MM 4.9-1 (see Section 4.9, <i>Hazards and Hazardous Materials</i>).	Less than significant
Impact 4.4-6: The project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State Habitat Conservation Plan.	No impact	No mitigation would be required.	No impact
Impact 4.4: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.4-1 through MM 4.4-12, and MM 4.9-1 (see Section 4.9, <i>Hazards and Hazardous Materials</i>).	Less than significant
4.5 Cultural Resources			
Impact 4.5-1: The project would cause a substantial adverse change in the significance of a historical resource, as defined in <i>CEQA Guidelines</i> Section 15064.5.	Potentially significant impact	MM 4.5-1: Prior to initial ground disturbance, or the issuance of grading permits, the project applicant shall retain a qualified Lead Archaeologist to carry out all mitigation measures related to archaeological resources. The contact information for this Lead Archaeologist shall be provided to the Kern County Planning and Natural Resources Department prior to	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>the commencement of any construction activities on-site. Further, the Lead Archaeologist shall be responsible for ensuring the following employee training provisions are implemented during implementation of the project:</p> <ol style="list-style-type: none"> Prior to commencement of any ground disturbing activities, the Lead Archaeologist shall prepare Cultural Resources Sensitivity Training materials, including a Cultural Resources Sensitivity Training Guide, to be used in an orientation program given to all personnel working on the project. The training guide may be presented in video form. A copy of the proposed training materials, including the Cultural Resources Sensitivity Training Guide, shall be provided to the Planning and Natural Resources Department prior to the issuance of any grading or building permit. The project proponent/operator shall ensure all new employees or onsite workers who have not participated in earlier Cultural Resources Sensitivity Trainings shall meet provisions specified above. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the Lead Archaeologist for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources. A copy of the Cultural Resources Sensitivity Training Guide/Materials shall be kept on-site and available for all personnel to review and be familiar with as necessary. It is the responsibility of the Lead Archaeologist to ensure all employees receive appropriate training before commencing work on-site. <p>MM 4.5-2: The project proponent shall comply with the following in the event of inadvertent discovery of resources occur during implementation of the project: Prior to the issuance of grading permits, the project proponent shall ensure the following measures are implemented for resources, which are discretionarily considered historical resources for the purposes of this project:</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> a. The construction zone shall be narrowed or otherwise altered to avoid resources. All avoidance areas delineated on the site plan shall be coordinated through the lead archeologist and submitted to the Kern County Planning and Natural Resources Department for approval. b. In coordination with the qualified archaeologist avoidance shall be ensured by the delineation of environmentally sensitive areas. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts. c. A qualified Archaeologist and Native American Monitor, shall monitor all project-related ground disturbing activities within 150 feet of the environmentally sensitive areas, in order to ensure avoidance. The Native American monitor shall be selected from a list of Native American contacts with traditional ties to the project area, provided by the Native American Heritage Commission and/or consultation with Native American tribal groups who may have interest in the project area. The archaeological monitor shall work under the supervision of the qualified archaeologist. d. If avoidance is demonstrated to be infeasible, the resource shall be collected and curated at an appropriate curatorial facility. Or if avoidance is demonstrated to be infeasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) to be impacted by the project. Treatment may consist of (but would not be limited to): <ul style="list-style-type: none"> 1. a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; 2. sample excavation; 3. surface artifact collection; 4. site documentation; and, 5. historical research, with the aim to target the recovery of important scientific data contained in the portion of the 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>significant resource to be impacted by the project.</p> <p>6. The Cultural Resources Treatment Plan shall also include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.</p>	
Impact 4.5-2: The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to <i>CEQA Guidelines</i> Section 15064.5.	Potentially significant impact	Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-2 .	Less than significant
Impact 4.5-3: The project would disturb any human remains, including those interred outside of dedicated cemeteries.	Potentially significant impact	MM 4.5-3: If human remains are uncovered during project construction, the project proponent shall immediately halt work within 100 feet of the find, contact the Kern County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e) of the California Environmental Quality Act Guidelines. If the County Coroner determines that the remains are Native American, the coroner shall contact the Native American Heritage Commission, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by Assembly Bill 2641). The Native American Heritage Commission shall designate a Most Likely Descendent for the remains per Public Resources Code 5097.98. Per Public Resources Code 5097.98, and in accordance with generally accepted cultural or archeological standards or practices, the landowner shall ensure that the immediate vicinity of the Native American human is not damaged or disturbed by further development activity until the landowner has conferred with the most likely descendent regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. If the remains are	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		determined to be neither of forensic value to the Coroner, nor of Native American origin, provisions of the California Health and Safety Code (7100 et. seq.) directing identification of the next-of-kin will apply.	
Impact 4.5: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-3 .	Less than significant
4.6 Energy			
Impact 4.6-1: The project would result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.	Less than significant impact	<p>Implement Mitigation Measure MM 4.3-3 (see Section 4.3, <i>Air Quality</i>).</p> <p>MM 4.6-1: Prior to the issuance building permits, the project proponent shall provide a report and summary of all energy efficient building design standards incorporated into the project design and operations to reduce the level of energy consumption of the project. The following measures shall be included in the project design, as applicable. Explanations for feasibility and implementation shall be included in the report:</p> <ul style="list-style-type: none"> a. Within one year of the first day of project operations, solar photovoltaics mounted on proposed structure's roofs to provide a portion of the future electrical demand and offset emissions from fossil fuel fired power plants. b. Incorporate green building measures that contribute to reducing energy use by at least 10 percent and up to 25 percent less than Title 24 requirements; c. Provide solar water heating for non-industrial water heating; d. If needed, in addition to roof mounted solar, provide ground mounted solar photovoltaics arrays to provide a portion of the estimated electrical demand for the proposed project; e. Commercial buildings shall be designed to meet LEED® certification standards; f. Roofs on all buildings shall be of a light color to reduce heat generation; g. Portions of parking lots (drive aisles) may be paved with concrete versus asphalt, based on structural determinations, to reduce initial 	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.6-2: The project would conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	Less than significant impact	<p>solar reflectance;</p> <ul style="list-style-type: none"> h. Within two years of the first day of project operations, up to 20% of employee parking stalls shall be covered. If feasible for electrical demand, the parking stall roofs shall contain solar photovoltaics i. LED lighting fixtures shall be used on all indoor and exterior site lighting; j. LED lighting fixtures shall be used on all public streets and site lighting; k. Electric forklifts and other material handling vehicles to reduce usage of fossil fuels shall be implemented, based on feasibility of operations. l. Consult with Kern County Public Works and Golden Empire Transit (GET) on feasible design circulation features for transit related public street improvements adjacent to the project for implementation of MM 4.17-3 Transportation Demand Management Program m. Provide bicycle friendly features, such as onsite bike lanes, bike racks, and bike lockers, to reduce vehicle miles traveled and to encourage non-vehicular transportation; n. Where feasible design operations to incorporate the usage of high efficiency electric motors for industrial uses. <p>MM 4.6-2: Prior to the issuance of building permits, the project proponent shall provide evidence that the project is designed to include the green building measures specified as mandatory in the application checklists contained in the current California Green Building Standards. In addition to the number of electric vehicle capable spaces provided with electric vehicle supply equipment required by the current California Green Building Standards, the project shall provide an additional two percent of electric vehicle-capable spaces with electric vehicle supply equipment.</p>	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.6: Cumulative Impacts	Less than significant impact	Implement Mitigation Measures MM 4.3-3 (see Section 4.3, <i>Air Quality</i>), MM 4.6-1 , MM 4.6-2 , MM 4.8-1 and MM 4.8-2 (see Section 4.8, <i>Greenhouse Gas Emissions</i>).	Less than significant
4.7 Geology and Soils			
Impact 4.7-1: The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo earthquake fault zoning map issued by the State Geologist for the area or based on other substantial evidence of a known fault.	Less than significant impact	No mitigation would be required.	Less than significant
Impact 4.7-2: The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: strong seismic ground shaking.	Potentially significant impact	<p>MM 4.7-1: The project proponent shall limit grading to the minimum area necessary for construction. Prior to the initiation of construction, the project proponent shall retain a California registered professional engineer to approve the final grading earthwork and foundation plans prior to construction.</p> <p>MM 4.7-2: Prior to the issuance of grading permits for the project, the Project proponent shall conduct a full geotechnical study to evaluate soil conditions on the Project site and submit it to the Kern County Public Works Department for review and approval.</p> <p>The geotechnical study must be signed and stamped by a California-registered professional engineer and must, at minimum, identify the following:</p> <ol style="list-style-type: none"> Maximum considered earthquake and associated ground acceleration; Potential for seismically induced liquefaction, landslides, differential settlement, and mudflows; Stability of any existing or proposed cut-and-fill slopes; collapsible or expansive soils; Foundation material type; 	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> e. Recommendations for placement and design of facilities, foundations, and remediation of unstable ground. f. The project proponent shall determine the final siting of project facilities based on the results of the geotechnical study and implement recommended measures to minimize geologic hazards. The project proponent shall not locate project facilities on or immediately adjacent to a fault trace. All structures shall be offset at least 100-feet from any mapped fault trace. Alternatively, a detailed fault trenching investigation may be performed to accurately locate the fault trace(s) to avoid sighting improvements on or close to these fault structures and to evaluate the risk of fault rupture. After locating the fault, accurate setback distances can be proposed. g. The Kern County Public Works Department shall evaluate any final facility siting design developed prior to the issuance of any building permits to verify that geological constraints have been avoided. <p>MM 4.7-3: Prior to the issuance of grading permits, the project proponent shall retain a California registered engineer to design the project facilities to withstand probable seismically induced ground shaking at the site. All grading and construction on-site shall adhere to the specifications, procedures, and site conditions contained in the final design plans, which shall be fully compliant with the seismic recommendations of the California-registered professional engineer. The procedures and site conditions shall encompass site preparation, foundation specifications, and protection measures for buried metal. The final structural design shall be subject to approval and follow-up inspection by the Kern County Building Inspection Department. Final design requirements shall be provided to the on-site construction supervisor and the Kern County Building Inspector to ensure compliance.</p> <p>MM 4.7-4: Building locations shall be stabilized against the occurrence of liquefaction by dynamic compaction, or other accepted soil stabilization method approved by the County Building official.</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.7-3: The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: seismic-related ground failure including liquefaction.	Less than significant impact	<p>MM 4.7-5: Prior to the issuance of grading permits, a geotechnical evaluation, consisting of field exploration (drilling and soil sampling), laboratory testing of soil samples, and engineering analysis, shall be prepared to determine soil properties related, but not limited, to ground-motion acceleration parameters, the amplification properties of the subsurface units at the specific site, the potential for hydrocompaction to affect the proposed facilities, and the potential for collapsible, subsiding, or expansive soils to affect the proposed facilities.</p> <p>These studies shall be used to determine the appropriate engineering for foundations and support structures as well as building requirements to minimize geotechnical hazard impacts. Copies of all analyses shall be submitted to the Kern County Public Works Department for review and approval. An approved copy of the evaluation shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.7-6: The project proponent shall use existing roads to the greatest extent feasible to minimize erosion.</p> <p>Prior to approval of the grading permit, final plans shall be reviewed and approved by the Kern County Public Works Department to confirm existing roads were used to the greatest extent feasible.</p> <p>MM 4.7-7: The project proponent shall limit grading to the minimum area necessary for construction and operation of the project. Final grading plans shall include best management practices (BMPs) to limit on-site and off-site erosion, a water plan to treat disturbed areas during construction and reduce dust, and a plan for the disposal of drainage waters originating on-site and from adjacent rights-of-ways (if required).</p> <p>The plans shall be submitted to the Kern County Public Works Department for review and approval.</p>	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.7-4: The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: landslides.	No impact	No mitigation would be required.	No impact
Impact 4.7-5: The project would result in substantial soil erosion or the loss of topsoil.	Potentially significant impact	<p>Implement Mitigation Measure MM 4.10-1 (See Section 4.10, <i>Hydrology and Water Quality</i>), MM 4.7-7, and:</p> <p>MM 4.7-8: The project proponent shall prepare a Soil Erosion and Sedimentation Control Plan to mitigate potential loss of soil and erosion. The plan shall be prepared by a California registered civil engineer or other professional approved to prepare said Plan and submitted for review and approval by the Kern County Public Works Department prior to issuance of grading permits. The Soil Erosion and Sedimentation Control Plan shall include, but is not limited to, the following:</p> <ul style="list-style-type: none"> a. Best Management Practices to minimize soil erosion consistent with Kern County grading requirements and the California Regional Water Quality Control Board requirements pertaining to the preparation and approval of a Stormwater Pollution Prevention Plan (Best Management Practices recommended by the Kern County Public Works Department shall be reviewed for applicability); b. Sediment collection facilities as may be required by the Kern County Public Works Department; c. A timetable for full implementation, estimated costs, and a surety bond or other security as approved by the County; and d. Other measures required by the County during permitting, including long-term monitoring (post-construction) of erosion control measures until site stabilization is achieved. e. Provisions to comply with local and state codes relating to drainage and runoff, including use of pervious pavements, and/or other methods to the extent feasible, to increase stormwater infiltration and reduce runoff onto agricultural lands. 	Less than significant
Impact 4.7-6: The project would be	Less than	No mitigation would be required.	Less than

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.	significant impact		significant
Impact 4.7-7: The project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.	Potentially significant impact	Implementation of Mitigation Measure MM 4.7-2 would be required.	Less than significant
Impact 4.7-8: The project would have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.	No impact	No mitigation would be required.	No impact
Impact 4.7-9: The project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	Potentially significant impact	<p>MM 4.7-9: Prior to the issuance of grading permits, the project proponent shall retain a qualified Paleontologist, defined as a Paleontologist meeting the Society for Vertebrate Paleontology's Professional Standards (Society for Vertebrate Paleontology 2010), to carry out all mitigation measures related to paleontological resources. The qualified Paleontologist and the Lead Archaeologist may be the same individual:</p> <ul style="list-style-type: none"> a. Prior to the start of any ground-disturbing activities, the qualified paleontologist shall prepare a Paleontological Resources Awareness Training program for all construction personnel working on the proposed project. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological Resources Awareness Training Guide shall be submitted to the Kern County Planning and Natural Resources Department. The training guide may be presented in video form. 	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> b. Paleontological Resources Awareness Training may be conducted in conjunction with the archaeological resources training. c. The training shall include an overview of potential paleontological resources that could be encountered during ground-disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified Paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized fossil collecting or intentional disturbance of paleontological resources. d. The project applicant shall ensure all new on-site construction personnel who have not participated in earlier Paleontological Resources Awareness Trainings shall meet the provisions specified above. e. The Paleontological Resources Awareness Training Guides shall be kept available for all personnel to review and be familiar with as necessary. <p>MM 4.7-10: During construction the qualified Paleontologist or designated monitor shall monitor all ground-disturbing activity (with the exception of vibratory or hydraulic installation of tracking or mounting structures and foundations or supports) that occurs at a depth of 5 feet or deeper below ground surface:</p> <ul style="list-style-type: none"> a. The duration and timing of monitoring shall be determined by the qualified Paleontologist in consultation with the Kern County Planning and Natural Resources Department and shall be based on a review of geologic maps and grading plans. <ul style="list-style-type: none"> 1. During the course of monitoring, if the paleontologist can demonstrate based on observations of subsurface conditions that the level of monitoring should be reduced, the Paleontologist, in consultation with the Kern County Planning and Natural Resources Department, may adjust the level of monitoring to circumstances, as warranted. b. Paleontological monitoring shall include inspection of exposed rock units during active excavations within sensitive geologic sediments. The qualified Paleontologist shall have authority to temporarily divert excavation operations away from exposed 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>fossils to collect associated data and recover the fossil specimens if deemed necessary.</p> <p>c. Following the completion of monitoring, the paleontologist shall prepare a report documenting the absence or discovery of fossil resources on-site. If fossils are found, the report shall summarize the results of the inspection program, identify those fossils encountered, recovery and curation efforts, and the methods used in these efforts, as well as describe the fossils collected and their significance. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to an appropriate repository such as the Natural History Museum of Los Angeles County.</p> <p>MM 4.7-11: If a paleontological resource is found, the project contractor shall cease ground-disturbing activities within 50 feet of the find. The qualified Paleontologist shall evaluate the significance of the resources and recommend appropriate treatment measures. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis. Any fossils encountered and recovered shall be cataloged and donated to a public, non-profit institution with a research interest in the materials. Accompanying notes, maps, and photographs shall also be filed at the repository.</p>	
Impact 4.7: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.7-1 through MM 4.7-11, and MM 4.10-1 (see Section 4.10, <i>Hydrology and Water Quality</i>) would be required.	Less than significant
4.8 Greenhouse Gas Emissions			
Impact 4.8-1: The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Potentially significant impact	Implement Mitigation Measures MM 4.3-3 and MM 4.3-5 (see Section 4.3, Air Quality) MM 4.6-1 and MM 4.6-2 (see Section 4.6, <i>Energy</i>) and MM 4.17-2 (see Section 4.17, Transportation and Traffic .) and	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.8-2: The project would conflict with any applicable plan, policy, or regulation adopted for the purpose of	Potentially significant impact	<p>MM 4.8-1</p> <ul style="list-style-type: none"> a. Prior to issuance of occupancy permits, the project developer shall disclose to all tenants/business entities that only electric-powered off-road equipment (e.g. forklifts, material handling equipment, etc.) shall be utilized for all indoor activities for daily warehouse and business operations and a copy of disclosure documents shall be submitted to the Planning and Natural Resources Department to be kept on file. b. Prior to issuance of grading permits, the project construction's General Contractor shall target a construction waste diversion rate of 80 percent. A monthly construction report shall be provided to the County documenting total waste generated, types of waste streams, and total waste recycled. c. During operation and to the extent feasible for safe warehouse operations, automatic light switches shall be incorporated into the project. d. During operation, any equipment containing greater than five pounds of refrigerant, procured or installed, shall be tagged so that project applicant and tenant can identify and verify all installed equipment. <p>MM-4.8-2: If tenant/business will utilize cold storage in the project, the project developer shall provide a disclosure to that user that requires all Transport Refrigeration Units (TRUs) entering the project site to be plug-in capable. The building systems shall be upgraded to provide electrical hookups as part of the tenant improvements for any tenant that requires cold storage. The electrical hookups shall be provided at loading bays for truckers to plug in any onboard auxiliary equipment and power refrigeration units while their truck is stopped. A copy of this required disclosure shall be provided to the Planning and Natural Resources Department prior to the issuance of occupancy permit for this specific user.</p> <p>Implement Mitigation Measures MM 4.3-3 and MM 4.3-5 (see Section 4.3, Air Quality), MM 4.6-1 and MM 4.6-2 (see Section 4.6, <i>Energy</i>) MM 4.8-1, MM 4.8-2 and MM 4.17-3 (see Section 4.17,</p>	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
reducing the emissions of greenhouse gas.		<i>Transportation and Traffic</i>).	
Impact 4.8: Cumulative Impacts	Potentially significant impact	Implement Mitigation Measures MM 4.3-3 and MM 4.3-5 (See Section 4.3, <i>Air Quality</i>), MM 4.6-1 , MM 4.6-2 (see Section 4.6, <i>Energy</i>), MM 4.8-1 and MM 4.8-2 , and MM 4.17-3 (see Section 4.17, <i>Transportation and Traffic</i>).	Significant and unavoidable impact
4.9 Hazards and Hazardous Materials			
Impact 4.9-1: The project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.	Potentially significant impact	<p>MM 4.9-1: Prior to the issuance of grading or building permits related to facilities requiring a Spill Prevention Control and Countermeasures Response Plan, the project proponent shall prepare and submit a Spill Prevention Control and Countermeasures Response Plan to the Kern County Public Health Services Department. Environmental Health Division, and the California Department of Water Resources, for review and approval by those agencies. The project proponent shall ensure the project is implemented in compliance with the approved Spill Prevention Control and Countermeasures Response Plan.</p> <p>MM 4.9-2: Prior to the issuance of building permits, the project proponent shall ensure any hazardous materials be stored properly and Material Safety Data Sheets shall be on site. Hazardous waste shall be managed properly. Training shall be provided to all personnel involved in handling of any hazardous materials or waste.</p> <p>MM 4.9-3: The project proponent shall consult with the Kern County Public Health Services Department – Environmental Health Division – Hazardous Materials Program. If required, the project proponent shall submit a Hazardous Materials Business Plan to the Kern County Environmental Health Division Hazardous Materials program and with the California Environmental Reporting System (CERS) for hazardous materials/wastes stored on site. This Business Plan, as applicable, shall be submitted within 30 days of operation.</p>	Less than significant
Impact 4.9-2: The project would create a significant hazard to the public or the environment through reasonably	Potentially significant impact	Implementation of Mitigation Measures MM 4.9-1 through MM 4.9-3 , as provided above, MM 4.4-3 (see Section 4.3, Biological Resources , for full mitigation measure text) and MM 4.7-8 would be	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
foreseeable upset and accident conditions involving the release of hazardous materials into the environment.		<p>required (see Section 4.7, <i>Geology and Soils</i>, for full mitigation measure text).</p> <p>MM 4.9-4: The Project proponent shall continuously comply with the following:</p> <p>If suspect materials or wastes of unknown origin are discovered during construction on the project site, which is thought to include hazardous waste materials the following shall occur:</p> <ul style="list-style-type: none"> a. All work shall immediately stop in the vicinity of the suspected contaminant; b. Project Construction Manager shall be notified; c. Area(s) shall be secured as directed by the Project Construction Manager; d. Notification shall be made to the Kern County Environmental Health Services Division/Hazardous Materials Section for consultation, assessment, and appropriate actions; and, e. Copies of all notifications and correspondence shall be submitted to the Kern County Planning and Natural Resources Department <p>MM 4.9-5: The following note shall appear on all final maps and grading plans:</p> <p><i>If during grading or construction, any plugged and abandoned or unrecorded wells are uncovered or damaged, the California Department of Geologic Energy Management Division will be contacted to inspect and approve any remediation required.</i></p> <p>MM 4.9-6: Prior to grading or excavating the Underground Service Alert One-call center shall be contacted. The proposed excavation area shall be delineated with white marking paint or with other suitable markers such as flags or stakes at least two days prior to commencing any excavation work. A “Dig Alert” ticket number would be issued at the time Underground Service Alert is contacted. Excavating is not permitted without this ticket number and is valid for twenty-eight days. Underground Service Alert would notify its member utilities having underground facilities in the area. Underground Service Alert does not notify nonmember utilities or energy companies, or Caltrans.</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.9-3: The project would emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.	No impact	No mitigation would be required.	No impact
Impact 4.9-4: The project would be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a	No impact	No mitigation would be required.	No impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
significant hazard to the public or the environment.			
Impact 4.9-5: The project would result in a safety hazard or excessive noise for people residing or working in the project area, for a project located within the adopted Kern County Airport Land Use Plan.	Potentially significant	<p>MM 4.9-10: Prior to issuance of building permits for portions of the project that meet the Federal Aviation Administration’s noticing requirements, the project proponent/operator shall comply with the following:</p> <ul style="list-style-type: none"> a. Submit Form 7460-1 (Notification of Proposed Construction or Alteration) to the Federal Aviation Administration, in the form and manner prescribed in Code of Federal Regulation 77.17. b. Obtain a Federal Aviation Administration issued “Determination of No Hazard to Air Navigation” or make the Federal Aviation Administration’s recommended changes to the project. c. Provide documentation to the Kern County Planning and Natural Resources Department demonstrating the project would comply with the Kern County Zoning Ordinance Figure 19.08.160 that all project components in the flight area would create no significant military mission impact and a copy of the site plan has been provided to the appropriate military authority responsible for operations in the flight area. <p>Provide documentation to the Kern County Planning and Natural Resources Department demonstrating that a copy of the final site plan has been provided to the operators of Meadows Field Airport.</p>	Less than significant
Impact 4.9-6: The project would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.	Less than significant impact	<p>Implementation of Mitigation Measure MM 4.17-4 and MM 4.17-5 (see Section 4.17, Transportation) and</p> <p>MM 4.9-11: Prior to the issuance of grading permits, the project proponent shall develop and implement a Fire Safety Plan for use during construction and operation.</p> <p>The project proponent shall submit the plan, along with maps of the project site and access roads, to the Kern County Fire Department for review and approval. The Fire Safety Plan shall contain notification procedures and emergency fire precautions, including, but not limited to, the following:</p> <ul style="list-style-type: none"> a. All internal combustion engines, both stationary and mobile, shall 	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>be equipped with spark arresters. Spark arresters shall be in good working order.</p> <p>b. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. These vehicle types shall maintain their factory-installed (type) mufflers in good condition.</p> <p>c. Fire rules shall be posted on the project bulletin board at the contractor's field office and in areas visible to employees.</p> <p>d. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.</p> <p>e. Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats.</p> <p>f. The project proponent shall make an effort to restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to periods outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.</p>	
Impact 4.9-7: The project would expose people or structures either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.	Potentially significant impact	Implementation of Mitigation Measures MM 4.9-11 and MM 4.15-1 (see Section 4.15, Public Services) would be required.	Less than significant
Impact 4.9-8: The project would generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste. Specifically, the project would not exceed the following qualitative threshold: the presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the project is significant when the applicable enforcement agency determines that any of	Potentially Significant Impact	<p>MM 4.9-12: Prior to issuance of building permits, a long-term trash abatement program shall be established for construction, operations and maintenance. Trash and food items shall be contained in closed containers and removed weekly.</p> <p>a. Trash and food items shall be contained in closed containers to be locked at the end of the day and removed at least once per week to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.</p> <p>MM 4.9-13: Prior to the issuance of building permits, the project</p>	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>the vectors:</p> <ul style="list-style-type: none"> i. Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; and ii. Are associated with design, layout, and management of project operations; and iii. Disseminate widely from the property; and iv. Cause detrimental effects on the public health or well-being of the majority of the surrounding population. 		proponent shall prepare a Vector Control Plan and submit it to the Kern County Environmental Health Services Department and Kern Mosquito Abatement District for review and approval. The Plan shall include best management practices such as: good housekeeping measures to minimize harborage for vectors. Further controls may include the use of traps or other abatement controls, and/or the use of a licensed pest management service if needed.	
Impact 4.9: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.4-3 (see Section 4.3, Biological Resources), MM 4.7-8 (see Section 4.7, Geology and Soils), MM 4.9-1 through MM 4.9-13 , MM 4.15-1 (see Section 4.15, Public Services) and MM 4.17-1 through MM 4.17-5 (see Section 4.17, Transportation and Traffic for full mitigation measure text).	Less than significant
4.10 Hydrology and Water Quality			
Impact 4.10-1: The project would violate any water quality standards or waste discharge requirements, or otherwise degrade surface or groundwater water quality.	Potentially significant impact	<p>Implementation of Mitigation Measures MM 4.7-8 and MM 4.9-3 would be required (see Sections 4.7, Geology and Soils, and 4.9, Hazards and Hazardous Materials, for full mitigation measure text), and:</p> <p>MM 4.10-1: Prior to issuance of a grading permit, the project proponent/operator shall submit a Stormwater Pollution Prevention Plan for review and approval by the Kern County Planning and Natural Resources Department and/or Kern County Public Works Department. The Stormwater Pollution Prevention Plan shall be designed to minimize runoff and shall specify best management practices to prevent all construction pollutants from contacting stormwater, with the intent of keeping sediment or any other pollutants from moving offsite and into receiving waters. The requirements of the Stormwater Pollution Prevention Plan shall be incorporated into design specifications and</p>	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>construction contracts. Recommended best management practices to be incorporated in the Stormwater Pollution Prevention Plan shall include the following:</p> <ul style="list-style-type: none"> a. Minimization of vegetation removal; b. Implementing sediment controls, including silt fences as necessary; c. Installation of a stabilized construction entrance/exit and stabilization of disturbed areas; d. Properly containing and disposing of hazardous materials used for construction onsite; e. Properly covering stockpiled soils to prevent wind erosion; f. Proper protections and containment for fueling and maintenance of equipment and vehicles; g. Appropriate disposal of demolition debris, concrete and soil, and aggressively controlling litter. h. Cleanup of silt and mud on adjacent street due to construction activity; i. Checking all lined and unlined ditches after each rainfall; j. Restore all erosion control devices to working order to the satisfaction of the Kern County Planning and Natural Resources Department and/or Kern County Public Works Department after each rainfall run-off; k. Install additional erosion control measures as may be required due to uncompleted grading operations or unforeseen circumstances which may arise. <p>MM 4.10-2: Prior to the issuance of a grading permit, the project proponent/operator shall complete a final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following:</p> <ul style="list-style-type: none"> a. A numerical stormwater model for the project site that evaluates existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event. b. The drainage plan shall consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> c. Engineering recommendations to be incorporated into the project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite. d. The drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards, and approved by the Kern County Public Works Department prior to the issuance of grading permits. 	
Impact 4.10-2: The project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.	Less than significant impact	Implementation of Mitigation Measure MM 4.19-3 and MM 4.19-4 (see Section 4.19, Utilities and Service Systems) would be required.	Less than significant
Impact 4.10-3: The project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on-site or off-site.	Potentially significant impact	Implementation of Mitigation Measures MM 4.7-8 (see Section 4.7, Geology and Soils , for full mitigation measure text) and MM 4.10-1 and MM 4.10-2 would be required.	Less than significant
Impact 4.10-4: The project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which	Less than significant impact	Implementation of Mitigation Measure MM 4.10-2 would be required.	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
would substantially increase the rate of amount of surface runoff in a manner which would result in flooding on-site or off-site.			
Impact 4.10-5: The project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.	Less than significant impact	Implementation of Mitigation Measure MM 4.10-2 would be required.	Less than significant
Impact 4.10-6: The project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows.	Less than significant impact	No mitigation would be required	Less than significant
Impact 4.10-7: The project would result in a flood hazard, tsunami, or seiche zone, that would risk release of pollutants due to project inundation.	No Impact	No mitigation would be required.	No Impact
Impact 4.10-8: The project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.	Less than significant impact	No mitigation would be required.	Less than significant
Impact 4.10: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.7-8 (see Section 4.7, Geology and Soils) and MM 4.9-3 (see Section 4.9, Hazards and	Less than Significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<i>Hazardous Materials</i>), MM 4.10-1 , MM 4.10-2 , MM 4.19-3 , and MM 4.19-4 (see Section 4.19 , <i>Utilities and Service Systems</i>) would be required.	
4.11 Land Use and Planning			
Impact 4.11-1: The project would physically divide an established community.	Less than significant impact	No mitigation would be required.	Less than significant
Impact 4.11-2: The project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than significant impact	MM 4.11-1: Prior to the issuance of building permits, the operator shall consult with the Meadows Field Airport to identify the appropriate Frequency Management Office officials to coordinate the use of telemetry to avoid potential frequency conflicts with airport operations. MM 4.11-2: Prior to the issuance of building permits, the project operator shall submit to the Kern County Planning and Natural Resources Department an executed aviation easement, approved as to form by County Counsel, for the benefit of the Meadows Field Airport.	Less than significant
Impact 4.11: Cumulative Impacts	Less than significant impact	Implementation of Mitigation Measures MM 4.1-3 , (see Section 4.1 , <i>Aesthetics</i> , for full mitigation measure text), MM 4.11-1 and MM 4.11-2 would be required.	Less than significant
4.12 Mineral Resources			
Impact 4.12-1: The project would result in the loss of availability of a known mineral resource that would be of value to the region and residents of the State.	Less than significant impact	No mitigation would be required.	Less than significant
Impact 4.12-2: The project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.	Less than significant impact	No mitigation would be required.	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.12-3: Cumulative Impacts	Less than significant impact	No mitigation would be required.	Less than significant
4.13 Noise			
Impact 4.13-1: The project would result in generation of a substantial temporary or permanent increase in the ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.	Potentially significant impact	<p>Implement Mitigation Measure MM 4.1-3 (see Section 4.1, <i>Aesthetics</i>)</p> <p>MM 4.13-1: The following measures are required to reduce short-term noise levels associated with project construction:</p> <ul style="list-style-type: none"> a. Construction activities at the project site shall comply with the hourly restrictions for noise-generating construction activities, as specified in the Kern County Noise Ordinance (Municipal Ordinance Code 8.36.020). Accordingly, construction activities shall be prohibited between the hours of 9:00 PM to 6:00 AM on weekdays, and between 9:00 PM to 8:00 AM on weekends. These hourly limitations shall not apply to activities where hourly limitations would result in increased safety risk to workers or the public or nighttime concrete pours that have been granted prior authorization from the County. b. Equipment staging and laydown areas shall be located at the furthest practical distance from nearby residential land uses. To the extent possible, staging and laydown areas should be located at least 500 feet of existing residential dwellings. c. Where feasible construction equipment shall be fitted with approved noise-reduction features such as mufflers, baffles and engine shrouds that are no less effective than those originally installed by the manufacturer. d. Haul trucks shall not be allowed to idle for periods greater than five minutes, except as needed to perform a specified function (e.g., concrete mixing). e. On-site vehicle speeds shall be limited to 15 miles per hour, or less (except in cases of emergency). f. Back-up beepers for all construction equipment and vehicles shall be broadband sound alarms or adjusted to the lowest noise levels possible, provided that the Occupational Safety and Health Administration and California Division of Occupational Safety and 	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Health's safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters shall be employed.</p> <p>MM 4.13-2: Prior to the issuance of grading permits, a "Noise Disturbance Coordinator" shall be established. The project operator shall submit evidence of methods of implementation and shall continuously comply with the following during construction:</p> <ol style="list-style-type: none"> The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved. <p>MM 4.13-3: Prior to commencement of any on-site construction activities (i.e., fence construction, mobilization of construction equipment, initial grading, etc.), the project proponent/operator shall provide written notice to the public through mailing a notice, which shall include:</p> <ol style="list-style-type: none"> The mailing notice shall be to all residences within 1,000 feet of the project site, no sooner than 15 days prior to construction activities. The notices shall include: the construction schedule, telephone number and email address where complaints and questions can be registered with the Noise Disturbance Coordinator. A minimum of one sign, legible at a distance of 50 feet, shall be posted at the construction site or adjacent to the nearest public access to the main construction entrance throughout construction activities that shall provide the construction schedule (updated as needed) and a telephone number where noise complaints can be registered with the Noise Disturbance Coordinator. Documentation that the public notice has been sent and the sign has been posted shall be provided to the Kern County Planning and Natural Resources Department. <p>MM 4.13-4: The following notes shall be placed on all grading and</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>building permits issued for the project site:</p> <p><i>“Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.</i></p> <p>During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.</p> <p>All equipment shall be fitted with factory equipped mufflers, and be in good working condition. Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices”.</p>	
Impact 4.13-2: The project would generate excessive ground borne vibration or ground borne noise levels.	Potentially Significant	No mitigation would be required.	Less than significant
Impact 4.13-3: The project is located within the Kern County Airport Land Use Compatibility Plan and would expose people residing or working in the area to excessive noise levels.	Less than Significant	No mitigation would be required.	Less than significant
Impact 4.13: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.1-3 (see Section 4.1, Aesthetics , for full mitigation measure text), and MM 4.13-1 through MM 4.13-4 would be required.	Significant and Unavoidable (construction)
4.14 Population and Housing			
Impact 4.14-1: The project would induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension	Less than significant impact	Implementation of Mitigation Measure MM 4.15-2 (see Section 4.15, Public Services) would be required.	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
of roads or other infrastructure).			
Impact 4.14-2: The project would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.	No impact	No mitigation would be required.	No impact
Impact 4.14: Cumulative Impacts	Less than significant impact	Implementation of Mitigation Measure MM 4.15-2 (see Section 4.15, Public Services) would be required.	Less than significant
4.15 Public Services			
Impact 4.15-1: The project would result in substantial adverse physical impacts associated with the provisions of new or physically altered governments facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service rations, response times, or to other performance objectives for any of the public services: Fire Protection, Police Protection, Schools, Parks, Other Public Facilities.	Potentially significant impact (fire facilities)	<p>Implement Mitigation Measures MM 4.9-11 (see Section 4.9, Hazards and Hazardous Materials), MM 4.17-1, MM 4.17-2, and MM 4.17-3 (see Section 4.17, Transportation and Traffic), and</p> <p>MM 4.15-1: The project proponent/operator shall work with the County to determine how the use of sales and use taxes from construction of the project can be maximized. This process shall include, but is not necessarily limited to, the project proponent/operator obtaining a street address within the unincorporated portion of Kern County for acquisition, purchasing and billing purposes, and registering this address with the State Board of Equalization. As an alternative to the aforementioned process, the project proponent/operator may make arrangements with Kern County for a guaranteed single payment that is equivalent to the amount of sales and use taxes that would have otherwise been received (less any sales and use taxes actually paid); with the amount of the single payment to be determined via a formula approved by Kern County. The project proponent/operator shall allow the County to use this sales tax information publicly for reporting purposes.</p> <p>MM 4.15-2: Prior to the issuance of any building permits on the property, the project operator shall submit a letter detailing the hiring efforts prior to commencement of construction, which encourages all contractors of the project site to hire at least 50 percent of their workers</p>	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		from local Kern County communities. The project operator shall provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notifying the training programs of job availability, all in conjunction with normal hiring practices of the contractor.	
Impact 4.15: Cumulative Impacts	Potentially significant impact (fire services)	Implementation of Mitigation Measures MM 4.9-11 (see Section 4.9, Hazards and Hazardous Materials), and MM 4.15-1 and MM 4.15-2 would be required.	Less than significant
4.16 Recreation			
Impact 4.16-1: The project would increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would occur or be accelerated.	Less than significant impact	No mitigation would be required.	Less than significant
Impact 4.16-2: The project would include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.	No impact	No mitigation would be required.	No impact
Impact 4.16: Cumulative Impacts	Less than significant impact	No mitigation would be required.	Less than significant
4.17 Transportation and Traffic			
Impact 4.17-1: The project would conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.	Potentially significant impact	MM 4.17-1: To improve traffic during operation of the project, the following traffic improvements shall be constructed at the intersection of Airport Drive / Olive Drive / Decatur Street prior to the buildout year of opening day; costs shall be funded entirely by the project proponent and at no cost to either the County of Kern or the California Department of Transportation (Caltrans):	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> a. Convert the inside eastbound and westbound through lanes to shared left-through lanes to provide two lanes for the eastbound and westbound left turn movements b. Implement split phased signal operation to all the separation of traffic movements in the eastbound and westbound direction c. Implement a split phasing scheme that re-optimizes the intersection timing including increasing the cycle length to 140 seconds in both the AM and PM peak hours <p>Prior to final occupancy, the project proponent shall complete the following:</p> <ul style="list-style-type: none"> a. Record an irrevocable offer of dedication to the County of Kern of all subject frontage along: <ul style="list-style-type: none"> 1. Airport Drive, 55 feet in width, and additional right-of-way for right turn channelization, per the Kern County Land Division Ordinance, and Development Standards 2. Boughton Drive, 55 feet in width, and additional right-of-way for right turn channelization, per the Kern County Land Division Ordinance, and Development Standards 3. Hangar Way, 45 feet in width, and additional right-of-way for right turn channelization, per the Kern County Land Division Ordinance, and Development Standards b. Under street improvement plans submitted for review and approval by the Kern County Public Works Department: <ul style="list-style-type: none"> 1. Construct Airport Drive project frontage to “Type A” Subdivision Standard, half width Arterial Street, and right turn lane (Plate R-40), per the Kern County Development Standards and the Land Division Ordinance. These improvements shall be, but not limited to: curb, gutter, sidewalk, wheelchair ramps, asphalt concrete, and the necessary tie-ins. 2. Construct Type B1 curb (Plate R-52), raised median curb along the Airport Drive project frontage, from Boughton Drive to Skyway Drive, per the Kern County Development Standards and Land Division Ordinance. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ol style="list-style-type: none"> 3. Construct Boughton Drive project frontage to “Type A” Subdivision Standard, half width Arterial Street, and right turn lane (Plate R-40), per the Kern County Development Standards and the Land Division Ordinance. These improvements shall be, but not limited to: curb, gutter, sidewalk, wheelchair ramps, asphalt concrete, and the necessary tie-ins. 4. Construct Hangar Way project frontage to “Type A” Subdivision Standard, half width Collector Street, and right turn lane (Plate R-40), per the Kern County Development Standards and the Land Division Ordinance. These improvements shall be, but not limited to: curb, gutter, sidewalk, wheelchair ramps, asphalt concrete, and the necessary tie-ins. 5. Construct a traffic signal at the intersection of Airport Drive and Park Meadows Avenue in accordance with Kern County Development Standards and Land Division Ordinance. 6. Include a striping plan and streetlight plan <ol style="list-style-type: none"> A. Provide a 20-foot by 20-foot right of way corner cutoff at all intersections. B. All employee drive approaches shall conform to Plate R-58, widths to be determined in consultation with Kern County Public Works Department and per the Kern County Development Standards and the Land Division Ordinance. C. All truck drive approaches shall conform to Plate R-58, widths to be determined in consultation with Kern County Public Works Department and per the Kern County Development Standards and the Land Division Ordinance. D. All easements shall be kept open, clear, and free from buildings and structures of any kind pursuant to Chapters 18.50 and 18.55 of the Kern County Land 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Division Ordinance. All obstructions, including utility poles and lines, trees, pole signs, fences, or similar obstructions, shall be removed from the ultimate road right-of-way. Compliance with this requirement is the responsibility of the applicant and may result in significant expenditures.</p> <p>MM 4.17-2: Prior to the issuance of any building permit within Metropolitan Bakersfield, the project proponent shall pay the required Transportation Traffic Impact fees.</p> <p>MM 4.17-3: Prior to the issuance of construction or building permits, the proposed project shall prepare a Transportation Demand Management program to reduce Vehicle Miles Travelled associated with employee trips. The program shall include Transportation Demand Management measures that would individually reduce the proposed project's Vehicle Miles Traveled and trips, with the goal of obtaining a Vehicle Miles Traveled reduction to lessen the proposed project's Vehicle Miles Traveled impact. The following Transportation Demand Management measures would be implemented by the proposed project as part of the Transportation Demand Management program:</p> <ol style="list-style-type: none"> Alternative-Mode Subsidies and Incentives: provide subsidization of transit fares, carpool, or electric vanpool for employees of the project site. Provide monetary incentives for alternate modes of transportation. Travel Behavior Change Program: Provide a web site that allows employees to research other modes of transportation for commuting to the site. Promotions and Marketing: Provide marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices with passive educational and promotional materials. Commute Assistance Center: Provide a computer kiosk that allows employees to research other modes of transportation for commuting. Preferential Carpool/Vanpool Parking Spaces: Provide reserved carpool/vanpool spaces closer to the building entrance. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> f. Passenger Loading Zones: Provide passenger loading zones for easy access to carpools or vanpools. g. Bike Share: Implement bike share to allow people to have on-demand access to a bicycle, as needed. h. Bike Parking and Facilities: Include secure bike parking and showers to provide additional end-of-trip bicycle facilities to support safe and comfortable bicycle travel. Provide on-site bicycle repair tools and space to use them supports ongoing use of bicycles for transportation 	
Impact 4.17-2: The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).	Less than significant	Implementation of Mitigation Measure MM 4.17-3 would be required.	Less than significant
Impact 4.17-3: The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).	Less than significant	<p>MM 4.17-4: Prior to the issuance of construction or building permits, the project proponent/operator shall:</p> <ul style="list-style-type: none"> a. Prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department – Traffic Division and the California Department of Transportation offices for District 6, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must address, at a minimum, the following issues: <ul style="list-style-type: none"> 1. Timing of deliveries of heavy equipment and building materials; 2. Directing construction traffic with a flag person; 3. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic; 4. Ensuring access for emergency vehicles to the project sites; 5. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, 	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>or any other utility connections;</p> <ol style="list-style-type: none"> 6. Maintaining access to adjacent property, 7. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hours; and, 8. Consult with the County to develop coordinated plans that would address construction-related vehicle routing and detours adjacent to the construction area for the duration of construction overlapping with neighboring projects. Key coordination meetings would be held jointly between applicants and contractors of other projects for which the County determines impacts may overlap. <ol style="list-style-type: none"> b. Obtain all necessary encroachment permits for the work within the road right-of-way or use of oversized/overweight vehicles that will utilize county maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits shall be submitted to the Kern County Planning and Natural Resources Department, the Kern County Public Works Department-Traffic Division, and Caltrans. c. Enter into a secured agreement with Kern County to ensure that any County roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the State and/or Kern County. d. Submit documentation that identifies the roads to be used during construction. The project proponent/operator shall be responsible for repairing any damage to county and non-county maintained roads that demonstrably result from construction activities. The project proponent/operator shall submit a pre-construction video log and inspection report regarding roadway conditions for roads used during construction to the Kern County Public Work Department-Traffic Division and the Kern County Planning and Natural Resources Department. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		e. Within 30 days of completion of construction, the project proponent/operator shall submit a post-construction video log and inspection report to the County. This information shall be submitted in electronic format on USB. The County, in consultation with the project proponent/operator's engineer, shall determine project responsibility for the damage and the extent of remediation required, if any.	
Impact 4.17-4: The project would result in inadequate emergency access.	Potentially significant impact	Implementation of Mitigation Measure MM 4.17-4 and MM 4.17-5 would be required.	Less than significant
Impact 4.17: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.17-1 through MM 4.17-5 .	Less than significant
4.18 Tribal Cultural Resources			
Impact 4.18-1a: The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k).	Potentially significant impact	Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-3 would be required (see Section 4.5, Cultural Resources , for full mitigation measure text).	Less than significant
Impact 4.18-1b: The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in	Less than significant impact	Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-3 would be required (see Section 4.5, Cultural Resources , for full mitigation measure text).	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			
Impact 4.18: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measure MM 4.5-1 through MM 4.5-4 would be required (see Section 4.5, <i>Cultural Resources</i> , for full mitigation measure text).	Less than significant
4.19 Utilities and Service Systems			
Impact 4.19-1: The project would require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.	Less than significant impact	<p>MM 4.19-1: Prior to issuance of building permits the project proponent shall coordinate with PG&E staff to determine the specific requirements regarding any potential electric service or facility issues needed to adequately accommodate the proposed project. The project proponent shall comply with and adhere to all requirements identified by PG&E to fully mitigate impacts to electric services and facilities, as needed as project construction progresses.</p> <p>MM 4.19-2: Prior to issuance of building permits the Project proponent shall coordinate with Pacific Gas and Electric Company (PG&E) staff to determine the specific requirements regarding any potential natural gas service or facility issues needed to adequately accommodate the proposed project. The project proponent shall comply with and adhere to all requirements identified by Pacific Gas and Electric Company (PG&E) to fully mitigate impacts to natural gas services and facilities,</p>	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
as needed as Project construction progresses.			
Impact 4.19-2: The project would have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years.	Less than significant impact	<p>MM 4.19-3: Prior to issuance of grading permits, the owner/operator shall provide information on any groundwater that will be used. Unmetered water wells cannot be used as a source of groundwater for the permit activity. Groundwater may only be used in a permitted activity from a water well equipped with a water meter. A copy shall be sent to all Groundwater Sustainability Agencies and the Kern County Water Agency after being posted on the website. The information submitted on the permit shall include the following data:</p> <ul style="list-style-type: none"> a. The source and estimated amount of any groundwater being used in the permit activity. b. Confirmation that any water well used in permit activity is metered. c. The source and estimated amount of any reclaimed water used in the permit activity. <p>MM 4.19-4: Water meters shall be installed on all facilities. Once operations of the first facility constructed on-site have commenced, the Master Developer or subsequent future land owners shall be required to submit annual reports to the Kern County Planning Department and the Kern County Environmental Health Services Department detailing the annual water usage on site.</p>	Less than significant
Impact 4.19-3: The project would result in a determination by the wastewater treatment provider which serves may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.	Less than significant impact	No mitigation would be required.	Less than significant impact
Impact 4.19-4: The project would generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid	Less than significant impact	<p>MM 4.19-5: During construction and operation, debris and waste generated shall be recycled to the extent feasible. The provisions listed below shall apply to the project:</p> <ul style="list-style-type: none"> a. A Recycling Coordinator shall be designated by the project 	Less than significant

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
waste reduction goals.		<p>applicant to facilitate recycling as part of the Construction, Operation and Maintenance, and Decommissioning, Trash Abatement and Pest Management Program.</p> <p>b. The Recycling Coordinator shall facilitate recycling of all construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes.</p> <p>c. The Recycling Coordinator shall also be responsible for ensuring wastes requiring special disposal are handled according to State and County regulations that are in effect at the time of disposal.</p> <p>d. Contact information of the coordinator shall be provided to the Kern County Planning and Natural Resources Department prior to issuance of building permits.</p> <p>e. The project applicant shall provide a storage area for recyclable materials within the fenced project area that is clearly identified for recycling. This area shall be maintained on the site during construction and decommissioning. A site plan showing the recycling storage area for construction shall be submitted prior to the issuance of any grading or building permit for the site.</p>	
Impact 4.19-5: The project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.	Less than significant impact	Implementation of Mitigation Measure MM 4.19-5 would be required.	Less than significant
Impact 4.19: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.19-1 through MM 4.19-5 would be required.	Less than significant (Wastewater, Storm Drainage, Solid Waste, Landfills, Electricity, Natural Gas, Telecommunications)

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
			Significant and Unavoidable (Water Supply)
4.20 Wildfire			
Impact 4.20-1: The project would substantially impair an adopted emergency response plan or emergency evacuation plan.	Less than significant impact	Implementation of Mitigation Measures MM 4.17-1 through MM 4.17-4 (see Section 4.17, Transportation and Traffic) would be required.	Less than significant
Impact 4.20-2: The project would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.	Potentially significant impact	Implementation of Mitigation Measures MM 4.9-11 (see Section 4.9, Hazards and Hazardous Materials) would be required.	Less than significant
Impact 4.20-3: The project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.	Potentially significant impact	Implementation of Mitigation Measures MM 4.9-11 (see Section 4.9, Hazards and Hazardous Materials) would be required.	Less than significant
Impact 4.20-4: The project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.	Less than significant	No mitigation is required	Less than significant
Impact 4.20: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.9-11 (see Section 4.9, Hazards and Hazardous Materials) would be required.	Less than significant

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Chapter 2

Introduction

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Chapter 2

Introduction

2.1 Intent of California Environmental Quality Act

The Kern County Planning and Natural Resources Department (KCPNR), as the lead agency, has determined that an Environmental Impact Report (EIR) is the appropriate environmental analysis document pursuant to the California Environmental Quality Act (CEQA) for the proposed IPG Industrial Project (Project) proposed by IPG Kern County 52 Holdings, LLC (Project proponent). The Project is located on approximately 49.05 acres of vacant land comprised of two parcels in unincorporated Kern County.

The Project site is located within the unincorporated community of Oildale and within the Metropolitan Bakersfield sphere of influence. The Project includes an approximately 923,130-square-foot warehouse and distribution logistics facility, with a combined 15,000 square feet of office space. Development would include the construction of two single-story buildings. Building 1 would total 655,690 square feet, including 10,000 square feet of office area, and Building 2 would total 267,440 square feet with 5,000 square feet of office area, totaling 923,130 square feet, with 15,000 square feet of dedicated office space. The Project would include all applicable site improvements on 49.05 acres of privately owned land.

The overall Project's primary function would be high-cube transload warehouse and distribution buildings to facilitate material handling equipment, and storage and logistics uses, that could include up to 20% of the buildings being used for cold storage. The warehouses would serve trucks exclusively and would require various types of truck doors. Interior warehouse design would be subject to tenant improvements to accommodate any specialized storage and distribution of a wide variety of goods and materials used in commerce including but not limited to: finished products, consumer goods, parts, materials, tires, and tools that are typically used in a modern distribution and logistics facility and are consistent with a Light Industrial – Precise Development Combining – Airport Approach Height Combining (M-1 PD-H) Zone District. Outdoor storage of bulk and wholesale materials is not proposed as part of this Project.

The Project includes land use entitlement requests for a precise development plan for overall Project development and a Zone Variance to exceed the 35-foot height limitations specified in the M-1 PD H Zoning District pursuant to Sections 19.36.020.E.2, 19.36.020.D.1 and 19.76.080 of the Kern County Zoning Ordinance.

This Draft EIR has been prepared pursuant to the following:

- CEQA (Public Resources Code, Section 21000 et seq.).
- CEQA Guidelines (California Code of Regulations, Title 14, Chapter 3, Section 15000 et seq.).

- The Kern County CEQA Implementation Document.

The overall purposes of the CEQA process are to:

- Ensure that the environment and public health and safety are protected in the face of discretionary projects initiated by public agencies or private concerns.
- Provide full disclosure of the Project's environmental effects to the public, the agency decision-makers who will approve or deny the Project, and responsible and trustee agencies charged with managing resources (for example, wildlife and air quality) that may be affected by the Project.
- Provide a forum for public participation in the decision-making process with respect to environmental effects.

2.2 Purpose of this Environmental Impact Report

An EIR is a public informational document used in the planning and decision-making process. This Project-level EIR analyzes the environmental impacts of the Project. The Kern County Board of Supervisors will consider the information in the EIR, including the public comments and staff response to those comments, during the public hearing. The decision of the Board of Supervisors, who may approve, conditionally approve, or deny the Project is final and non-appealable. The purpose of an EIR is to identify the following:

- The significant potential impacts of a project on the environment and indicate how those significant impacts can be avoided or mitigated.
- Any unavoidable adverse impacts that cannot be mitigated.
- Reasonable and feasible alternatives to a project that would eliminate any significant adverse environmental impacts or reduce the impacts to a less than significant level.

An EIR also discloses growth-inducing impacts; impacts found not to be significant; and significant cumulative impacts of the project when taken into consideration with past, present, and reasonably anticipated future projects.

CEQA requires that an EIR reflect the independent judgment of the lead agency regarding the impacts, the level of significance of the impacts both before and after mitigation, and mitigation measures proposed to reduce the impacts. A draft EIR is circulated to responsible agencies, trustee agencies with resources affected by a project, and interested agencies and individuals. The purposes of public and agency review of a draft EIR include sharing expertise, disclosing agency analyses, checking for accuracy, detecting omissions, discovering public concerns, and soliciting mitigation measures and alternatives capable of avoiding or reducing the significant effects of a project, while still attaining most of the basic objectives of a project.

2.2.1 Areas of Controversy

Areas of controversy were identified through written agency and public comments received during the EIR Notice of Preparation and scoping period. Public comments received during the scoping period are summarized in this **Chapter 2, Introduction**, and provided in Appendix A. Although not controversial, key issues were identified as they relate to the various environmental topics in **Chapter 4, Environmental Setting, Impacts, and Mitigation Measures**:

- Impacts related to air quality
- Impacts related to greenhouse gas emissions
- Impacts related to noise
- Impacts related to utilities and service systems

2.2.2 Issues to Be Resolved

Section 15123(b) (3) of the *CEQA Guidelines* requires that an EIR contain issues to be resolved that include the choices among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved regarding a project include the following decisions by the lead agency:

- Determine whether the Draft EIR adequately describes the environmental impacts of the project.
- Identify a preferred choice among alternatives.
- Determine whether the recommended mitigation measures should be adopted or modified.
- Determine whether additional mitigation measures need to be applied to the project.

2.3 Terminology

To assist readers in understanding this Draft EIR, terms used are defined in the following manner:

- **Project** means the whole of an action that has the potential for resulting in a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.
- **Environment** means the physical conditions that exist within the area that will be affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved is the locale in which significant direct or indirect impacts would occur as a result of the Project. The environment includes both natural and human-created conditions.

- **Impacts** analyzed under CEQA must be related to a physical change. Impacts are:
 - Direct or primary – Impacts that would be caused by the Project and would occur at the same time and place of project implementation; or
 - Indirect or secondary – Impacts that are caused by the Project at a later time or farther removed in distance but are still reasonably foreseeable. Indirect or secondary impacts may include growth-inducing impacts and other effects related to induced changes in the pattern of land use, population density or growth rate, or related effects on air, water, and other natural systems, including ecosystems.
- **Significant impact on the environment** means a substantial, or potentially substantial, adverse change in any of the physical conditions in the Project vicinity affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. An economic or social change resulting from a project by itself is not considered a significant impact on the environment. A social or economic change related to a physical change may be considered in determining whether the physical change is significant.
- **Mitigation** consists of measures to avoid or substantially reduce the Project's significant environmental impacts by:
 - Avoiding the impacts altogether by not taking a certain action or parts of an action;
 - Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
 - Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the actions; or
 - Compensating for the impacts by replacing or providing substitute resources or environments.
- **Cumulative Impacts** are two or more individual impacts that, when considered together, are considerable or compound or increase other environmental impacts. The following statements also apply when considering cumulative impacts:
 - The individual impacts may be changes resulting from a single project or separate projects.
 - The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor, but collectively significant, projects taking place over time.

This Draft EIR uses a variety of terms to describe the level of significance of adverse impacts. These terms are defined as follows:

- ***Less than significant:*** An impact that is adverse but that does not exceed the defined thresholds of significance. Less than significant impacts do not require mitigation.
- ***Significant:*** An impact that exceeds the defined thresholds of significance and would or could cause a substantial adverse change in the environment. Mitigation measures are recommended to eliminate the impact or reduce it to a less than significant level.
- ***Significant and unavoidable:*** An impact that exceeds the defined thresholds of significance and cannot be eliminated or reduced to a less than significant level through the implementation of mitigation measures.

2.4 Decision-Making Process

CEQA requires lead agencies, in this case Kern County, to solicit and consider input from other interested agencies, citizen groups, and individual members of the public. CEQA also requires the Project to be monitored after it has been permitted to ensure that mitigation measures are carried out.

CEQA requires the lead agency to provide the public with a full disclosure of the expected environmental consequences of the Project and with an opportunity to provide comments. In accordance with CEQA, the following is the process for public participation in the decision-making process:

- **Initial Study (IS)/Notice of Preparation (NOP).** Kern County prepared and circulated an IS/NOP for 30 days to the responsible agencies, trustee agencies, and local agencies as well as other interested parties for review and comment beginning on November 16, 2023, and ending on December 18, 2023.
- **Draft EIR Preparation/Notice of Completion.** The Draft EIR is prepared, incorporating public and agency responses to the IS/NOP and the scoping process. The Draft EIR is circulated for review and comment to appropriate agencies and additional individuals and interest groups who have requested to be notified of EIR projects. Per Section 15105 of the *CEQA Guidelines*, Kern County will provide for a 45-day public review period on the Draft EIR. Kern County will subsequently respond to each comment on the Draft EIR received in writing through a Response to Comments chapter in the Final EIR. The Response to Comments will be provided to each agency or person who provided written comments on the EIR a minimum of 10 business days before the scheduled Board of Supervisors hearing on the Final EIR and Project.
- **Preparation and Certification of Final EIR.** The Board of Supervisors will consider the Final EIR, all public comments, and the Project, and take final action on the Project. At least one public hearing will be held by the Board of Supervisors to consider the Final EIR, take public testimony, and then approve, conditionally approve, or deny the Project.

2.4.1 Initial Study and Notice of Preparation

In accordance with CEQA Guidelines Section 15082 (a) (NOP) and the County's Guidelines, the KCPNR circulated an IS/NOP for a 30-day public review. The IS/NOP was sent to the State Clearinghouse, public agencies, special districts, responsible and trustee agencies, and other interested parties for a public review period that began on November 16, 2023, and ended on December 18, 2023.

The purpose of the IS/NOP is to formally convey that Kern County, as the lead agency, solicited input regarding the scope and proposed content of the EIR. The IS/NOP, scoping meeting, and community workshop materials, comment letters received, and a complete summary of all scoping comments are included in Appendix A.

2.4.2 Scoping Meeting

Pursuant to Section 15082 (c)(1) of the CEQA Guidelines, for projects of statewide, regional, or area-wide significance, the lead agency is required to conduct at least one scoping meeting. The scoping meeting is for jurisdictional agencies and interested persons or groups to provide comments regarding, but not limited to, the range of actions, alternatives, mitigation measures, and environmental effects to be analyzed. Kern County hosted a scoping meeting on December 6, 2023, at 1:30 p.m., at the KCPNR, located at 2700 "M" Street, Suite 100, Bakersfield, California. During the December 6, 2023, scoping meeting, three members of the public were present, one of whom provided comments. Jorge Torres, a representative from the Western States Regional Council of Carpenters and a resident of the surrounding area, discussed the Project's need to hire local union labor and how such hiring efforts are associated with a reduction of air quality impacts.

IS/NOP and Scoping Meeting Results

Specific environmental concerns were received as written comments during the IS/NOP public scoping period and are presented below. The IS/NOP, scoping meeting materials and all comments received are included in Appendix A.

IS/NOP Written Comments

The County received 12 letters with substantive comments in response to the IS/NOP. The comments are summarized in **Table 2-1**.

Table 2-1: Summary of Comments on the Notice of Preparation

Commenter	Summary of Comment
State Agencies	
Native American Heritage Commission Letter: November 21, 2023	Recommends consultation with California Native American tribes in the geographic area. Compliance with Assembly Bill 52 and Senate Bill 18 and provides recommendations for cultural resource assessment.
Department of Justice Attorney General Rob Bonta Letter: November 28, 2023	States that priority should be placed on avoiding land use conflicts between warehouses and sensitive receptors. Raises concerns about associated environmental impacts from warehouses, such as emissions of nitrogen oxide and particulate matter of 2.5 microns or less, and their associated health impacts including respiratory problems, cancer, heart disease, and premature death. Also provides the Attorney General Office's Bureau of Environmental Justice best practices and mitigation measures for warehouse projects.
California Department of Conservation Geologic Energy Management Division Letter: November 29, 2023	Indicates there are no known oil and gas wells located within the Project boundary and maintains that the Division has statutory authority over the drilling; operation and maintenance; and abandonment of oil, gas, and geothermal wells and attendant facilities.
California Department of Transportation Scott Lau, Associate Transportation Planner Email: December 1, 2023	Verified receipt of the NOP by the California Department of Transportation. No comments were made on the content of the NOP.
State of California – Natural Resources Agency Department of Fish and Wildlife Letter: December 22, 2023	Indicates there are special-status species that may be present at the Project site. Recommends that a qualified biologist conduct focused habitat assessments to determine the absence or presence of special-status species within the Project site. Recommends that individual Project sites be surveyed for Bakersfield cactus (<i>Opuntia basilaris</i> var. <i>treleasei</i>), and avoided with no disturbance buffer of 50 feet or consultation if no buffer can be achieved. Recommends assessing the presence/absence of San Joaquin kit fox (<i>Vulpes macrotis mutica</i>) by conducting den surveys following the U.S. Fish and Wildlife Service standards with repeat surveys at the beginning of ground and/or vegetation disturbing activities if there is no issued Incidental Take Permit. Worker awareness training is recommended for the qualified biologist. Recommends compensation for loss of Swainson's hawk (<i>Buteo swainsoni</i>) foraging habitat and proximity of potential nesting trees on the parcel east of the Project. Recommends conducting protocol surveys within the survey season immediately prior to Project construction. Recommends focus habitat assessment for suitable habitat of the Crotch's bumble bee (<i>Bombus crochii</i>) and avoidance measures if the species is detected during surveys. Recommends focused habitat assessment for species presence/absence for Burrowing owl (<i>Athene cunicularia</i>), California glossy snake (<i>Arizona elegans occidentalis</i>), Bakersfield legless lizard (<i>Anniella grinnelli</i>), and American badger (<i>Taxidea taxus</i>) as State species of special concern. Avoidance measures are recommended.

Commenter	Summary of Comment
	Also recommends consulting with the U.S. Fish and Wildlife Service regarding federally listed species including the Bakersfield cactus and San Joaquin kit fox.
Local Agencies	
Kern County Superintendent of Schools Letter: November 22, 2023	Indicates that the Project will have no significant effects on school district facilities so long as statutory school fees, if any, are collected as required by law and that no further mitigation measures regarding school facilities are necessary.
North of the River Recreation and Park District Steph Thisius- Sanders Letter: November 29, 2023	Indicates the Project will have no impact on the services or facilities North of the River Recreation and Park District.
Kern County Public Works, County Surveyor Letter: December 4, 2023	Recommends placing the following conditions on the Project: all survey monuments be tied out by a licensed land surveyor, all survey monuments destroyed be reset or have a suitable witness corner set, and all survey monuments shall be accessible by a licensed land surveyor or representative.
Kern County Public Works Department, Development Review, Floodplain Management Section, Sewer and Water Section, County Service Area Section Letter: December 5, 2023	Verified receipt of the NOP by the Public Works Department and “no comments” noted for the Development Review Section, Sewer and Water Section, and CSA Section. The Floodplain Management Section recommends the Project applicant shall provide a plan for the disposal of drainage waters originating on site and from adjacent road rights-of-way.
San Joaquin Valley Air Pollution Control District Letter: December 19, 2023	<p>Recommends the Project use the cleanest available off-road construction equipment. Recommends reducing operational emissions to levels below the San Joaquin Valley Air Pollution Control District’s significance through design elements. States the review should adequately characterize and justify trip length distance for off-site truck travel to and from the site with consideration of logistics facility and high generation of truck trips for distribution.</p> <p>States the environmental review should evaluate the risk associated with sensitive receptors with a prioritization method for a conservative screening-level health risk assessment using the California Air Pollution Control Officers Association’s methodology.</p> <p>Recommends performing an ambient air quality analysis for the Project if emissions exceed 100 pounds per day of any pollutant. Includes recommendations for industrial/warehouse emission reduction strategies.</p> <p>Recommends the County evaluate Heavy Heavy-Duty truck routing patterns to limit exposure in residential communities, reduce idling of heavy-duty trucks, use of electric or zero-emission equipment, and implement vegetative barriers and urban greening to reduce air pollution exposure on sensitive receptors.</p> <p>Recommends on-site solar use and electric infrastructure such as electric vehicle charging equipment. Also lists District Rules that the Project may be subject to.</p>
Southern California Gas Company Nerses Papazyan Email: December 20, 2023	Indicates the receipt of the NOP and states the Project would not conflict with the Distribution’s pipeline system.
Interested Parties	
Western States Regional Council of Carpenters Email: December 6, 2023	Suggests the County requires using the local workforce for Project development to improve positive economic impact and reduce vehicle miles traveled. Also suggests the County should require training to prevent the spread of COVID-19 and other infectious diseases.

Key:

NOP = Notice of Preparation

2.4.3 Availability of the Draft Environmental Impact Report

This Draft EIR has been distributed directly to agencies, organizations, and interested groups and persons for comment during a 45-day formal review period in accordance with Section 15087 of the *CEQA Guidelines*. This Draft EIR and the full administrative record for the Project, including all studies, is available for review during normal business hours Monday through Friday at the Kern County Planning Department, located at:

Kern County Planning and Natural Resources Department

2700 “M” Street, Suite 100

Bakersfield, California 93301-2370

Contact: Mark Tolentino, Planner III

Phone: (661) 862-5041, Fax: (661) 862-8601

TolentinoM@kerncounty.com

This Draft EIR is also available on the KCPNR website:

<http://kernplanning.com/planning/environmental-documents>.

Additionally, this EIR is available at the following libraries:

Kern County Library/Beale

Local History Room

701 Truxtun Avenue

Bakersfield, California 93301

2.5 Format and Content

This Draft EIR addresses the potential environmental effects of the Project and was prepared using input from the public and responsible and affected agencies, and the EIR scoping process, as discussed previously. The contents of this Draft EIR were based on the findings in the IS/NOP, and public and agency input. Based on the findings of the IS/NOP, a determination was made that this Draft EIR must contain a comprehensive analysis of all environmental issues identified in Appendix G of the CEQA Guidelines. No resource areas were eliminated from discussion through the IS. The Draft EIR is organized by the following resources:

- Aesthetics and Visual Resources
- 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 and Service Systems
- Wildfire

2.5.1 Required Environmental Impact Report Content and Organization

Table 2-2 contains a list of sections required under CEQA, along with a reference to the chapter

Table 2-2: Required Environmental Impact Report Contents

Requirement (California Environmental Quality Act Section)	Location in the Draft Environmental Impact Report
Table of Contents (Section 15122)	Table of Contents
Executive Summary (Section 15123)	Chapter 1
Introduction (Section 15132)	Chapter 2
Project Description (Section 15124)	Chapter 3
Environmental Setting (Section 15125)	Sections 4.1 – 4.20
Significant Environmental Impacts (Section 15126.2)	Sections 4.1 – 4.20
Environmental Setting (Section 15125)	Sections 4.1 – 4.20
Mitigation Measures (Section 15126.4)	Chapter 1 and Sections 4.1 – 4.20
Cumulative Impacts (Section 15130)	Chapter 1 and Sections 4.1 – 4.20
Effects Found not to be Significant (Section 15128)	Chapters 1, 4, and 5
Unavoidable Significant Environmental Impacts (Section 15126.2(b))	Chapters 4 and 5
Significant Irreversible Changes (Section 15126.2(c))	Chapter 5
Growth-Inducing Impacts (Section 15126.2(d))	Chapter 5
Alternatives to the Proposed Project (Section 15126.6)	Chapter 6
Response to Comments (Section 15132)	Chapter 7
Organizations and Persons Consulted (Section 15129)	Chapter 8
List of Preparers (Section 15129)	Chapter 9
References (Section 15148)	Chapter 10

The content and organization of this Draft EIR are designed to meet the requirements of CEQA and the CEQA Guidelines, as well as to present issues, analysis, mitigation, and other information in a logical and understandable way. This Draft EIR is organized into the following sections:

- Chapter 1, *Executive Summary*, provides a summary of the Project description and a summary of the environmental impacts and mitigation measures.
- Chapter 2, *Introduction*, provides CEQA compliance information, an overview of the decision-making process, organization of the Draft EIR, and a responsible and trustee agency list.
- Chapter 3, *Project Description*, provides a description of the location, characteristics, and objectives of the Project, and the relationship of the Project to other plans and policies associated with the Project.
- Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, contains a detailed environmental analysis of the existing conditions, Project impacts, mitigation measures, and cumulative impacts.
- Chapter 5, *Consequences of Project Implementation*, presents an analysis of the Project's cumulative and growth-inducing impacts and other CEQA requirements, including significant and unavoidable impacts and irreversible commitment of resources.
- Chapter 6, *Alternatives*, describes a reasonable range of alternatives to the Project that could reduce the significant environmental effects that cannot be avoided.
- Chapter 7, *Responses to Comments*, is reserved for responses to comments on the Draft EIR.
- Chapter 8, *Organizations and Persons Consulted*, lists the organizations and persons contacted during preparation of this Draft EIR.
- Chapter 9, *Preparers*, identifies persons involved in the preparation of the Draft EIR.
- Chapter 10, *Bibliography*, identifies reference sources for the Draft EIR.
- Appendices provide information and technical studies that support the environmental analysis contained within the Draft EIR.

The analysis of each environmental category in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures* is organized as follows:

- “Introduction” provides a brief overview of the purpose of the section analyzed regarding the Project.
- “Environmental Setting” describes the physical conditions that exist at this time and that may influence or affect the topic analyzed.
- “Regulatory Setting” provides State and federal laws and the Kern County General Plan (KCGP) goals, policies, and implementation measures that apply to the topic analyzed.

- “Impacts and Mitigation Measures” discusses the impacts of the Project in each category, presents the determination of the level of significance, and provides a discussion of feasible mitigation measures to reduce any impacts.
- “Cumulative Setting, Impacts, and Mitigation Measures” provides a discussion of the cumulative geographic area for each resource area, and analysis of whether the Project would contribute to a significant cumulative impact, and, if so, identifies cumulative mitigation measures.

2.6 Responsible and Trustee Agencies

Projects or actions undertaken by the lead agency, in this case, the KCPNR, may require subsequent oversight, approvals, or permits from other public agencies to be implemented. Other such agencies are referred to as “responsible agencies” and “trustee agencies.” Pursuant to Sections 15381 (Responsible Agency) and 15386 (Trustee Agency) of the CEQA Guidelines, as amended, responsible agencies and trustee agencies are defined as follows:

- A “responsible agency” is a public agency that proposes to carry out or approve a project, for which a lead agency is preparing or has prepared an EIR or Negative Declaration. For the purposes of CEQA, the term “responsible agency” includes all public agencies other than the lead agency that have discretionary approval power over the project (Section 15381).
- A “trustee agency” is a state agency having jurisdiction by law over natural resources affected by a project that are held in trust for the people of the State of California (Section 15386).
- “Public agency” does not include agencies of the federal government (CEQA Guidelines 15379).

The various public, private, and political agencies and jurisdictions with a particular interest in the Project include the following:

Federal Agencies

- U.S. Fish and Wildlife Service
- U.S. Environmental Protection Agency
- Federal Aviation Administration

State Agencies

- California Air Resources Board
- California Department of Conservation, Geologic Energy Management Division

- California Department of Fish and Wildlife
- California Native American Heritage Commission
- Governor's Office of Planning and Research
- Office of the State Fire Marshall
- Regional Water Quality Control Board, Central Valley District
- State Water Resources Control Board

Local Agencies

- San Joaquin Air Pollution Control District
- Kern Council of Governments
- Kern County Public Works Department, Operations Division
- Kern County Public Works Department, Engineering and Surveying Services Division
- Kern County Fire Department
- KCPNR
- Kern County Public Health Services Department, Environmental Health Division
- Kern County Public Services Department, Development Review Division
- Kern County Planning Commission
- Kern County Board of Supervisors

2.7 Incorporation by Reference

In accordance with Section 15150 (Incorporation by Reference) of the CEQA Guidelines, to reduce the size of the EIR, the following documents are hereby incorporated by reference into this Draft EIR and are available for public review at the KCPNR. A brief synopsis of the scope and content of these documents is provided in the following subsections.

Metropolitan Bakersfield General Plan (Unincorporated Planning Area)

The Metropolitan Bakersfield General Plan (MBGP) is a policy document with land use designations and related information designed to give long-range guidance to Kern County officials who make decisions affecting the growth and resources of the unincorporated Kern County portions of the Metropolitan Bakersfield planning area. The MBGP, adopted on December 3, 2002, helps to ensure that day-to-day decisions conform to long-range policies designed to protect the public interest related to the County's growth and development. The

MBGP is available at the following link: <https://kernplanning.com/planning/planning-documents/general-plans-elements/>.

Kern County Zoning Ordinance

According to Chapter 19.02.020, Purposes, Title 19 was adopted to promote and protect the public's health, safety, and welfare through the orderly regulation of land uses throughout the unincorporated area of Kern County. The purposes of this title are as follows:

- Provide the economic and social advantages resulting from an orderly planned use of land resources.
- Encourage and guide development consistent with the KCGP.
- Divide Kern County into zoning districts of a number, size, and location deemed necessary to carry out the KCGP and this title.
- Regulate the size and use of lots, yards, and other open spaces.
- Regulate the use, location, height, bulk, and size of buildings and structures.
- Regulate the intensity of land use.
- Regulate the density of population in residential areas.
- Establish requirements for off-street parking.
- Regulate signs and billboards.
- Provide for the enforcement of the regulations of Chapter 19.02.

Regional Transportation Plan

The 2022 Regional Transportation Plan (RTP) is a 24-year blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide the development of the planned multimodal transportation systems in Kern County. It was developed through a continual, comprehensive, and cooperative planning process; and provides for effective coordination between local, regional, State, and federal agencies. Included in the 2022 RTP is the Sustainable Communities Strategy (SCS), which is required by California's Sustainable Communities and Climate Protection Act, Senate Bill (SB) 375. The California Air Resources Board set Kern greenhouse gas emissions reductions from passenger vehicles and light-duty trucks at 9% per capita by 2020 and 15% per capita by 2035 as compared to 2005. In addition, SB 375 provides for closer integration of the RTP/SCS with the Regional Housing Needs Allocation ensuring consistency between low-income housing needs and transportation planning. Kern Council of Governments (Kern COG) engaged in the Regional Housing Needs Allocation process concurrently with the development of the 2022 RTP/SCS. This process required Kern COG to work with its member agencies to identify areas within the region that can provide sufficient housing for all economic segments of the population and ensure that the State's housing goals are met.

The SCS intends to achieve the State's emissions reduction targets for automobiles and light trucks. The SCS will also provide opportunities for a stronger economy, healthier environment, and safer quality of life for community members in Kern County. The RTP/SCS seeks to improve economic vitality, air quality, the health of communities, and transportation and public safety; promote the conservation of natural resources and undeveloped land; and increase access to community services, regional and local energy independence, and opportunities to help shape our community's future.

The 2022 RTP/SCS financial plan identifies available funds to support the region's transportation investments. The plan includes a core revenue forecast of existing local, State, and federal sources along with funding sources that are considered to be reasonably available over the time horizon of the RTP/SCS. These new sources include adjustments to State and federal gas tax rates based on historical trends and recommendations from two national commissions (National Surface Transportation Policy and Revenue Study Commission and National Surface Transportation Infrastructure Financing Commission), leveraging of local sales tax measures, local transportation impact fees, potential national freight program/freight fees, future State bonding programs, and mileage-based user fees.

The 2022 RTP/SCS plan is available at the following link: https://www.kerncog.org/wp-content/uploads/2022/12/2022_RTP.pdf.

2.8 Sources

This Draft EIR is dependent upon information from many sources. Some sources are studies or reports that have been prepared specifically for this document. Other sources provide background information related to one or more resource areas that are discussed in this document. The sources and references used in the preparation of this Draft EIR are listed in Chapter 10, *Bibliography*, and are available for review by appointment during normal business hours at:

Kern County Planning and Natural Resources Department

2700 "M" Street, Suite 100

Bakersfield, California 93301-2370

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Chapter 3

Project Description

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Chapter 3

Project Description

3.1 Project Overview

This Draft Environmental Impact Report (EIR) has been prepared by Kern County, the California Environmental Quality Act (CEQA) Lead Agency, to identify and evaluate potential environmental impacts associated with implementation of the proposed IPG Industrial Project (Precise Development [PD] Plan No. 72, Map No. 102; Zoning Variance [ZV] No. 57, Map No 102) (Project) by IPG Kern County 52 Holdings, LLC (Project proponent). The Project would be located on approximately 49.05 acres of privately owned parcels (Assessor Parcel Numbers [APNs]: 492-010-13 and 492-010-17).

The Project would include the development of a 923,130-square-foot warehouse distribution facility and associated improvements on approximately 49.05 acres located in the central portion of unincorporated Kern County. The facility contains two, single-story buildings: one building (Building 1) would total approximately 655,690 square feet, including 10,000 square feet of office, and the second (Building 2) would total 267,440 square feet, including 5,000 square feet of office. The warehouse buildings would be primarily constructed from architecturally enhanced concrete panels and would not be taller than 56 feet above the finished floor elevation.

The Project's primary function would be a high cube and cold storage warehouse to facilitate material handling equipment and storage uses, where cold storage would occupy up to 20% of the facility. The warehouses would exclusively serve trucks and would require truck doors of various types. Improvements to roadways would be required to adhere to Kern County Public Works Department development standards. Other improvements include utility, water, gas lateral extensions, and storm drainage systems (collectively, "the Project").

3.2 Project Location

The Project site is located on approximately 49.05 acres, comprised of two privately owned parcels, in the central portion of unincorporated Kern County, California. The Project site is approximately 1.7 miles north of the incorporated City of Bakersfield and approximately 3.1 miles east of the incorporated City of Shafter. The unincorporated community of Oildale directly abuts the east side of the Project site. The Project site is approximately 1.4 miles northeast of State Route (SR) 99. Regional access to the Project site is provided by SR 99 and Merle Haggard Drive via Airport Drive. Local access to the Project site is available via Airport Drive and Boughton Drive. **Figure 3-1** shows the regional location and surrounding vicinity of the Project. **Figure 3-2** illustrates the Project site boundary and surrounding area. The Project vicinity is characterized by industrial and commercial uses (such as distribution, storage, and shipping centers), transportation, vacant land, and residential uses that are primarily east of the Project site.

Figure 3-1: Regional Location

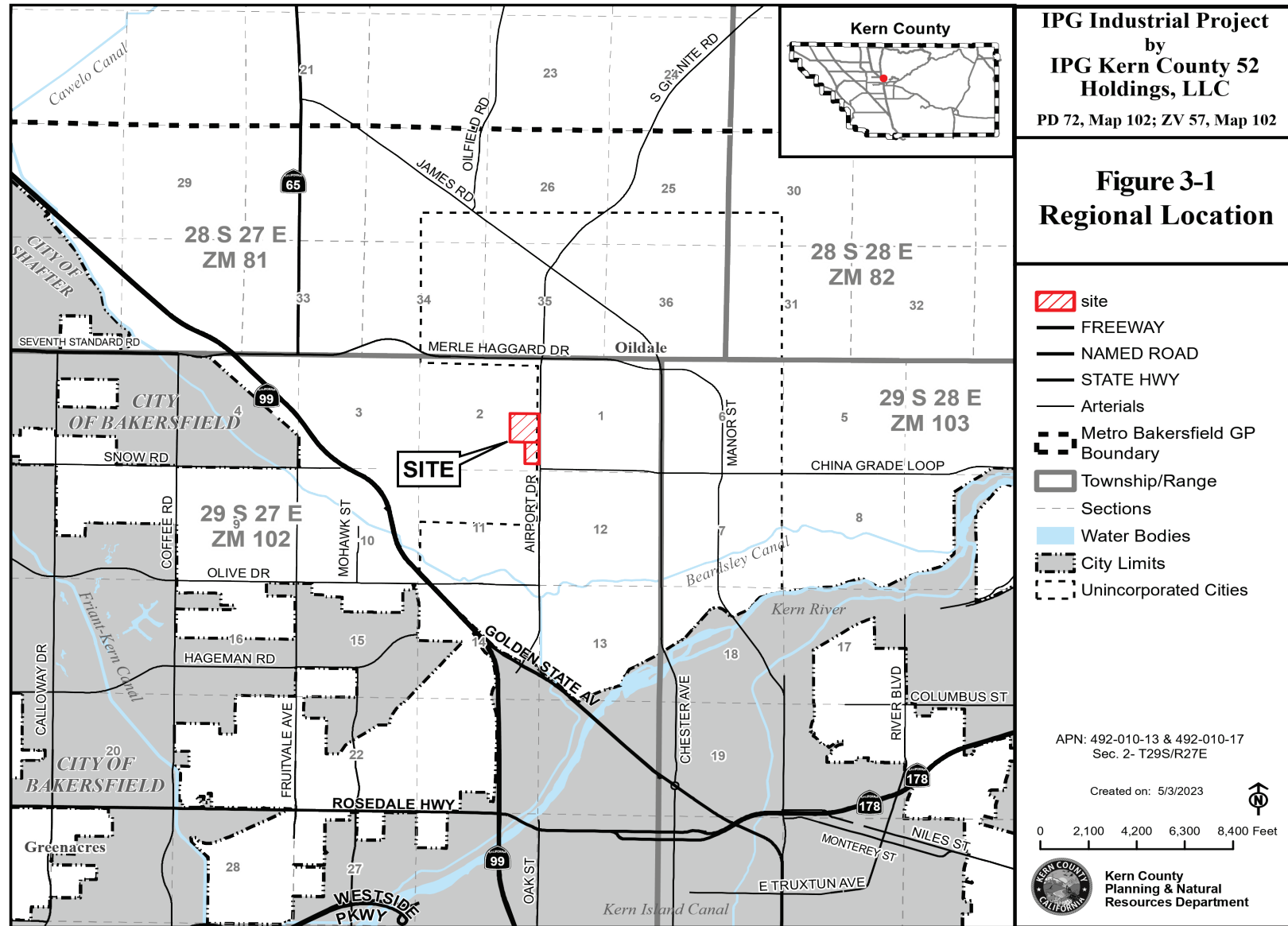
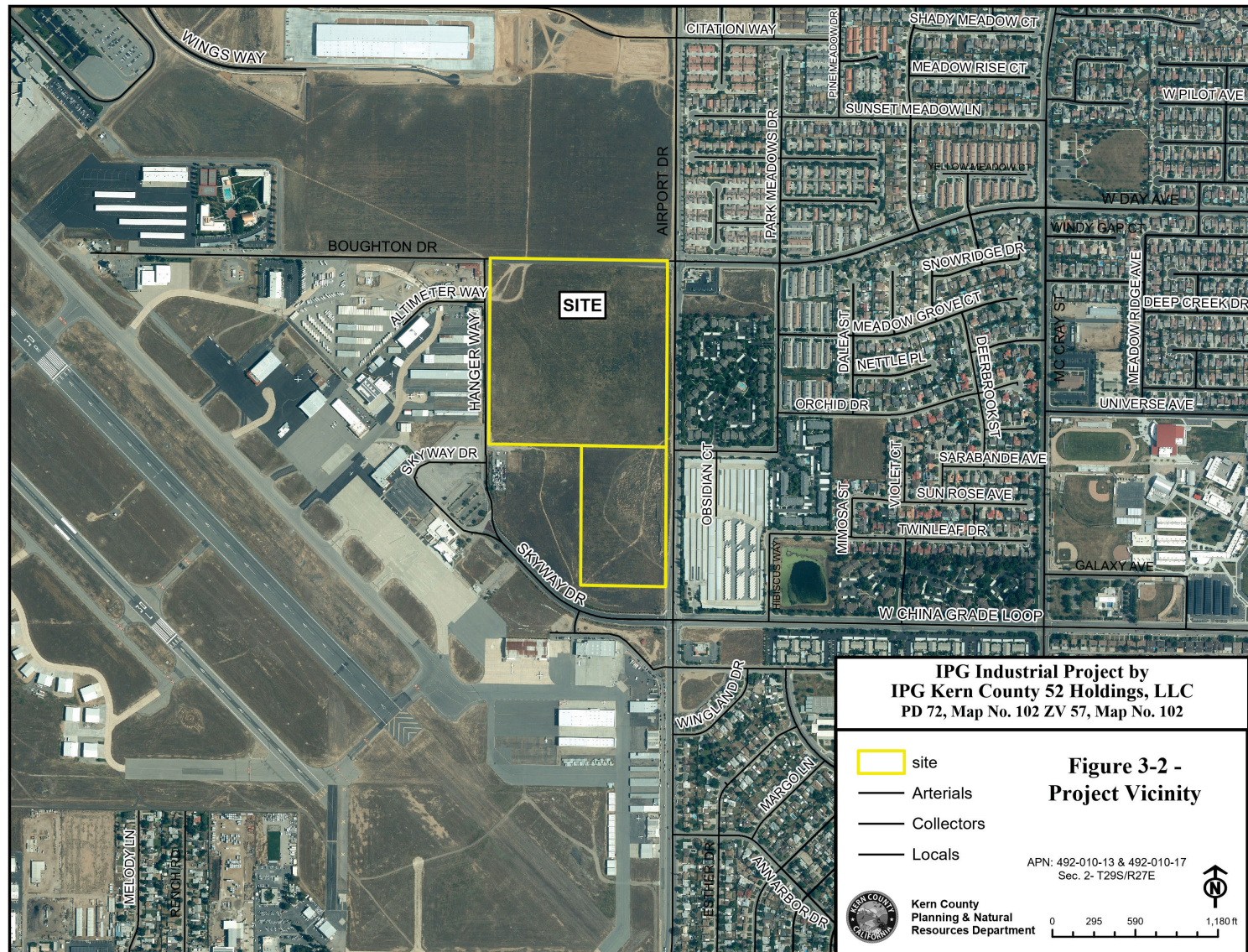


Figure 3-2: Project Vicinity



The Project site lies within the administrative boundaries of the Metropolitan Bakersfield General Plan (MBGP). **Table 3-1** lists the existing MBGP designations, which are also depicted on **Figure 3-3**. The entire Project site is subject to the provisions of Kern County Zoning, illustrated on **Figure 3-4**. **Table 3-1** provides Project APNs, map code designations, existing zoning, and total acreage per parcel. The primary entrance to the Project site would be located off Airport Drive, which would lead to on-site parking stalls for employees located at both buildings. Building 1 would be located within APN 492-010-13 and Building 2 would be located within APN 492-010-17.

Table 3-1: Project Assessor Parcel Numbers, Existing Land Uses, and Acreages

Parcel	APN	Map Code Designation	Existing Zoning	Acres
1	492-101-13	LI	M-1 PD H	35.17
2	492-101-17	LI	M-1 PD H	13.88
Approximate Project Total Acreage				49.05

Key:

APN = Assessor Parcel Number

H = Airport Approach Height District

LI = Light Industrial

M-1 = Light Industrial District

PD = Precise Development District

3.3 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 project's underlying purpose and may discuss the project's benefits. The following are Project objectives submitted by the Project proponent:

- Develop state-of-the-art warehouse and distribution facilities near major transportation corridor
- Meet regional demand for Class A industrial facilities that address local traffic patterns and needs
- Develop a visually appealing industrial project that is consistent with the provisions of the Kern County Zoning Ordinance, Land Division Ordinance, and Development Standards
- Promote land use compatibility with adjacent airport-related uses by developing a warehouse and distribution facility
- Contribute to the local economy through new capital investment, the creation of new employment opportunities, expansion of the tax base, economic growth and development, and payment of development fees
- Site an industrial project in a location consistent with current and future market demands that minimize conflicts with surrounding uses

3.4 Environmental Setting

3.4.1 Regional Character

Kern County is California's third-largest county in land area and encompasses approximately 8,161 square miles. The county's geography includes, mountainous areas, agricultural lands, and deserts. As noted, the Project site is located north of the City of Bakersfield, which serves as the county seat and sits at the southern end of the San Joaquin Valley, bound by the Coast Range to the west, the Transverse Range (San Emigdio Mountains) to the south, and the Sierra Nevada (including the Tehachapi Mountains) to the east. According to the California Department of Finance's 2023 Population estimates, Kern County's current estimated population is 907,476 residents and Bakersfield is the largest city in the county with a current estimated population of 408,373 residents. The Project site and surrounding land are relatively flat and exhibit little topographic variation.

The elevation of the Project site ranges from approximately 495 feet above mean sea level to approximately 540 feet above mean sea level with a gentle north-easterly slope. The Project site can be described as flat; however, outside of leveled fields and orchards, the area is better described as an uneven plain consisting of extensive alluvial fans, debris flow, and over-bank deposits. Vegetation on the valley floor is predominated by modern cultigens and other non-native species, such as Russian thistle (tumbleweed) and grasses. The Project site does not contain jurisdictional waters of the United States including wetlands, per the National Wetlands Inventory maintained by the U.S. Fish and Wildlife Service.

3.4.2 Local Character

The Project is in unincorporated Kern County and adjacent to the unincorporated community of Oildale. The City of Bakersfield is 1.7 miles south of the Project site, and the City of Shafter is 3.1 miles northeast of the site. Existing development in the area includes access roads, residential communities, industrial and commercial uses, and an airport.

The Project is within the Sphere of Influence of the Meadows Field Airport, approximately 0.6 mile west of the Project, as shown on **Figure 3-5**. Meadows Field Airport is recognized as an Airport Influence Area, which means policies of the Airport Land Use Compatibility Plan would apply to the Project.

The Project site is not within a Special Flood Hazard Area based upon the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM), per FIRM number 060291825F, effective October 21, 2021. The nearest flood hazard areas are located approximately 1 mile west and east of the Project site. There are no identified State-designated Alquist-Priolo Earthquake Fault Zones on the Project site. The nearest major faults of the San Andreas Fault and Garlock Fault are approximately 40 miles southwest and 40 miles southeast of the Project site, respectively (refer to Section 4.7, *Geology and Soils*). The Project site is not within an area that is designated by the California Department of Conservation Farmland Mapping and Monitoring Program as Prime

Farmland, Farmland of Statewide Importance, or Unique Farmland. No lands within the Project site are subject to a Williamson Act Land Use contract. The Project site is not part of an Agricultural Preserve.

The Project site is not designated as a mineral resource zone. Based on records maintained by the California Department of Conservation provided by the Geologic Energy Management Division's online mapping tool, there are no oil or gas wells identified on site.

The Project would be served by the Kern County Sheriff's Office for law enforcement and public safety, Kern County Fire Department for fire protection, and Kern County Medical Emergency Service for emergency medical and rescue services. The nearest Kern County Sheriff's Office substation and Kern County Fire Department fire station (Station No. 63) that would serve the Project are both in the unincorporated community of Oildale, approximately 1.3 miles west and 1.5 miles south of the Project site, respectively. The nearest hospitals are the Good Samaritan Hospital-Bakersfield at 901 Olive Drive, Bakersfield, California, approximately 1.6 miles south, and Memorial Hospital, approximately 5 miles southwest of the Project site.

3.5 Land Use and Zoning

3.5.1 Surrounding Land Uses

Existing land uses immediately surrounding the Project site are varied and consist of industrial, commercial, transportation, and residential uses. To the north, the Project boundary runs parallel to Boughton Drive with vacant undeveloped land across Boughton Drive, which is also designated for light industrial use. An aeronautical university is also northwest of the site at the terminus of Boughton Drive. To the east, the Project boundary runs parallel to Airport Drive, with a mix of uses across Airport Drive including Derrel's Mini Storage, Park Meadows Apartments, and Fabulous Burgers. The residential uses, located east of Project site, are comprise single- and multifamily residences, with the nearest residences being the Park Meadows apartment complex sited approximately 100 feet directly east. The Project has been designed so that no truck docks face the residences located east of the site and incorporates a heavy landscaping barrier along the Project's eastern setback and incorporates a dense landscaping barrier along the Projects eastern setback. To the south and opposite of Skyway Drive are a FedEx Ship Center, Epic Jet Center, and Airman Flight Training facilities. To the west is Hanger Way, and approximately 0.6 miles, to the west, is Meadows Field Airport and transportation-related facilities. **Table 3-2** summarizes the Project site and surrounding land uses.

Table 3-2: Project Site and Surrounding Land Uses

	Existing Land Use	Existing Map Code Designation	Existing Zone Classification
Project Site	Vacant	Light Industrial (LI)	Light Industrial Precise Development Airport Approach Height Combining

	Existing Land Use	Existing Map Code Designation	Existing Zone Classification
			District (M-1 PD H)
North	Vacant	Light Industrial (LI)	Light Industrial Precise Development Airport Approach Height Combining District (M-1 PD H)
East	Residential, Storage, Restaurant	Major Commercial (MC), General Commercial (GC)	General Commercial Precise Development Combining District (C2 PD); High Density Residential – Precise Development Combining (R-3 PD); Medium Density Residential – Precise Development Combining (R-2 PD); Low Density Residential (R-1)
South	Shipping Centers, Transportation services	Public Transportation (PT)	Medium Industrial Airport Approach Height Combining District (M-2 H)
West	Airport, Transportation Services	Public Transportation (PT)	Medium Industrial Airport Approach Height Combining District (M-2 H)

Key:

C2 = General Commercial District

GC = General Commercial

H = Airport Approach Height

LI = Light Industrial

MC = Major Commercial

M-1 = Light Industrial

M-2 = Medium Industrial

PD = Precise Development

PT = Public Transportation

R-1 = Low Density Residential

R-2 = Medium Density Residential

R-3 = High Density Residential

3.5.2 Existing General Plan and Zoning

Kern County and the City of Bakersfield have jointly prepared and separately adopted a general plan known as the MBGP for an unincorporated planning area in which the Project is located. This 409-square-mile planning area is a separate, but interrelated plan to the Kern County General Plan. The MBGP guides future development in the area through the adoption of all mandated elements per Government Code Section 65302.

Within the MBGP, the Project site has a Land Use Map Code (Land Use Designation) of LI (Light Industrial), which is consistent with the existing zone classification of M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District. This base M-1 District contains the PD and H (Precise Development – Airport Approach Height) combining districts overlays to ensure that development in these designated areas are compatible with surrounding land uses, as discussed in the following subsections. The surrounding MBGP land use designations and zoning districts are shown on **Figure 3-3** and **Figure 3-4**, respectively.

Figure 3-3: General Plan Land Use Designation

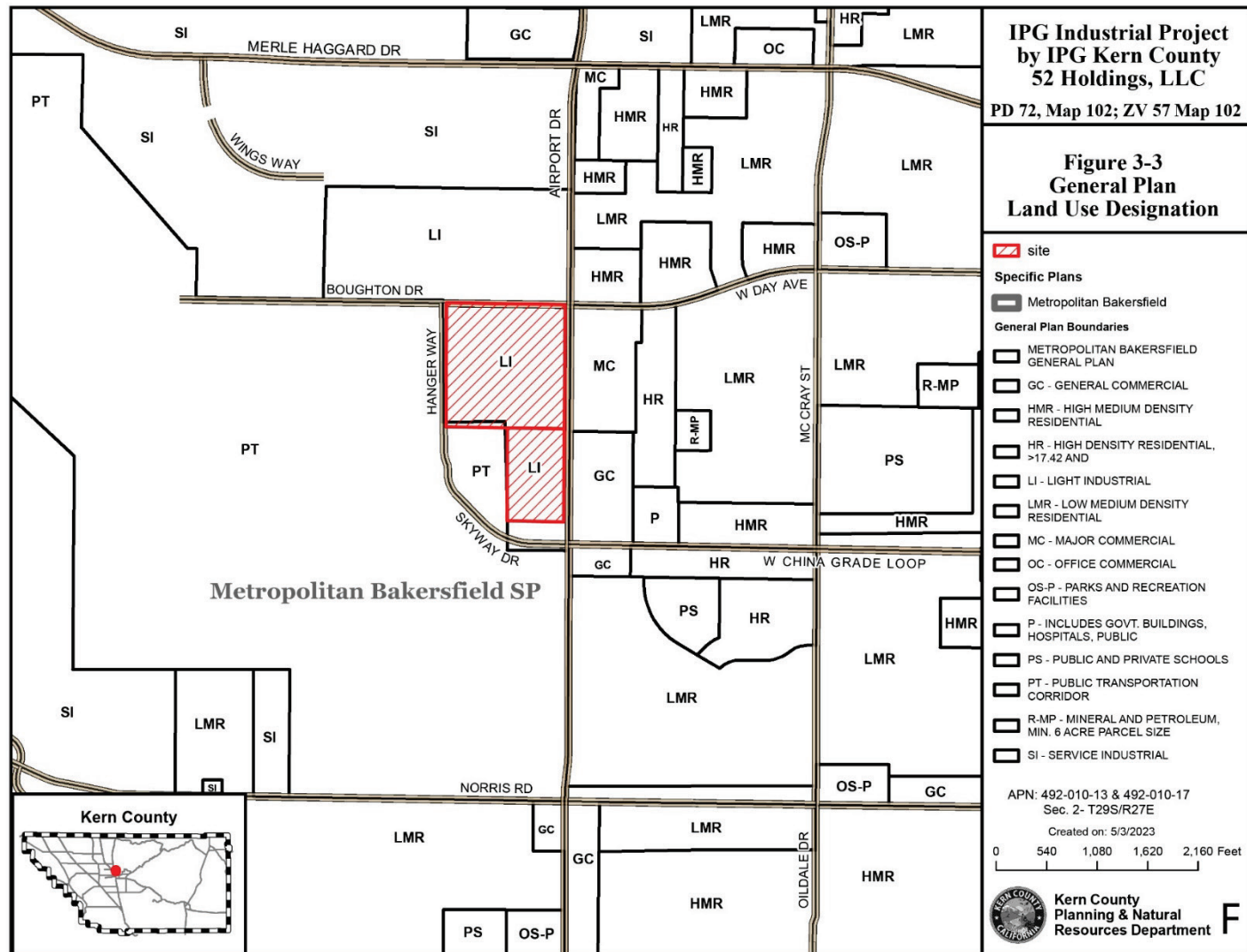


Figure 3-4: Zoning Classifications

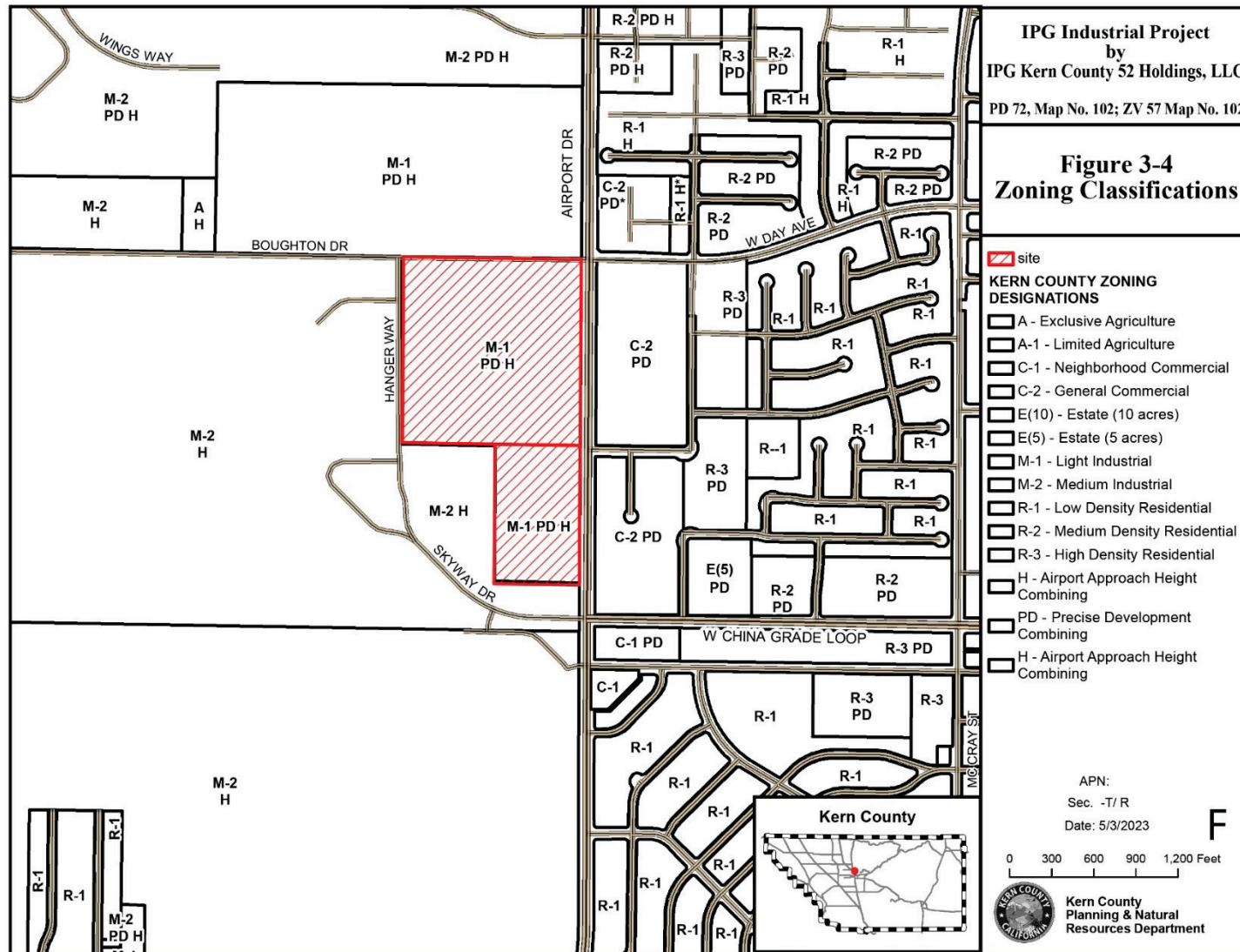
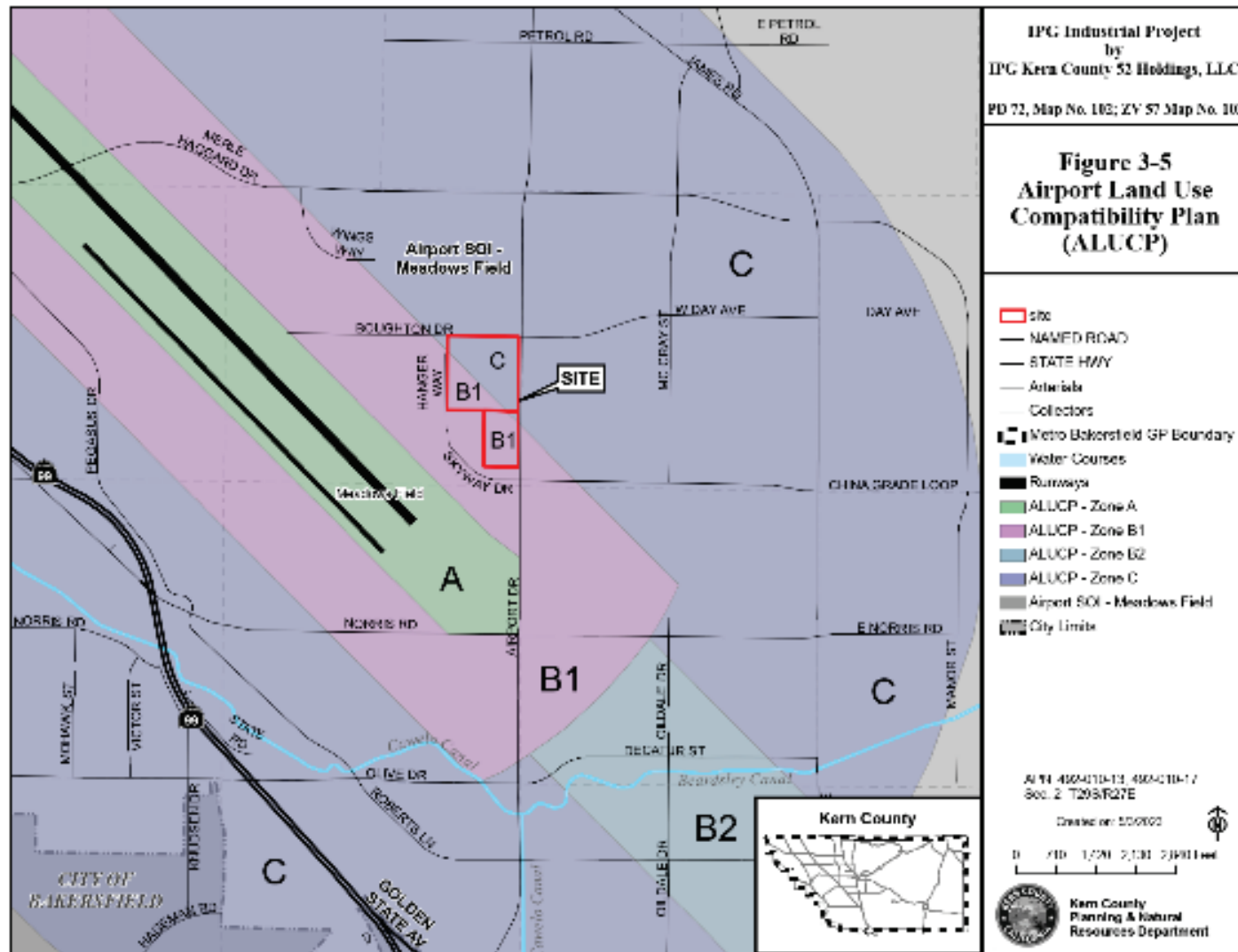


Figure 3-5: Airport Land Use Compatibility Plan



3.5.3 Kern County Zoning Ordinance

As discussed in the previous subsections the base zoning districts are defined in Title 19 of the Zoning Ordinance of Kern County and classified by combining zoning districts to further regulate land uses within these districts. **Figure 3-4** shows the Project site's zoning districts M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District.

The purpose of the Light Industrial (M-1) District is to designate areas for wholesale commercial, storage, trucking, assembly-type manufacturing, and other similar industrial uses. Processing or fabrication will be limited to activities conducted within a building that does not emit fumes, odor, dust, smoke, or gas beyond the confines of the building within which the activities occur or produce significant levels of noise or vibration.

The purpose of the PD Combining District is to designate areas with unique site characteristics or environmental conditions or areas surrounded by sensitive land uses to ensure that development in such areas is compatible with such constraints. The application of the PD District may be initiated by either the property owner or the county. The PD District may be combined with any base district. The regulations established by the PD District shall be in addition to the regulations of the base district with which the PD District is combined.

The purpose of the Airport Approach Height (H) Combining District is to minimize aviation hazards by regulating land uses, restricting the height of buildings and vegetation, and specifying design criteria necessary to promote aviation safety and to implement the requirements of the adopted Airport Land Use Compatibility Plan. The H District may be applied to areas within the vicinity of any public or general-use airport as provided for in the adopted Airport Land Use Compatibility Plan. The standards established by the H District shall be in addition to the regulations of the base district with which the H District is combined.

3.6 The Project

The Project would include an approximately 923,130-square-foot logistics facility and associated improvements, with a combined 15,000 square feet of office space. The facility would include two single-story warehouses that exclusively serves trucks. The Project site comprises two privately owned parcels for a total of approximately 49.05 acres. Implementation of the Project includes the following approvals from Kern County:

- **Precise Development Plan (PD No. 72, Map No. 102)** to allow construction and operation of a warehouse distribution and logistics facility within two single-story warehouses totaling 923,130 square feet, with 15,000 square feet of dedicated office space (Sections 19.36.020.E.2 and 19.36.020.D.1) on an approximate 49.05 acre Project site across two parcels in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District at the corner of Boughton Drive and Airport Drive:

- **Building 1:** 655,690 square feet, including 10,000 square feet of dedicated office space
- **Building 2:** 267,440 square feet, including 5,000 square feet of dedicated office space
- **Zoning Variance (ZV No. 57, Map No. 102)** to allow construction of a 56-foot-tall warehouse building where 35 feet is authorized (Section 19.76.080) in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District.

3.7 Project Characteristics

3.7.1 Project Facilities

The overall Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage and logistics uses, with a secondary application of cold storage occupying up to 20% of the facility. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage and distribution for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, and tools. typically found in a modern distribution/logistics facility consistent with M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) Zone District. Outdoor storage of bulk and wholesale materials is not proposed as part of this Project. **Table 3-3** summarizes the Project facilities.

Table 3-3: Project Facilities Summary

	Acres	Proposed End Use	Maximum Building Footprint	Maximum Building Height	Truck Dock Trailer Parking Spaces	Automobile Parking Spaces	Truck Trailer Spaces
Total	49.04	~923,130 square foot high-cube with up to 20% cold storage warehouse	923,130	+/- 56 feet	124	547 stalls	307 stalls

The proposed PD Plan is depicted in **Figure 3-6a** through **Figure 3-6i**, which contains specific sheets for the Overall Site Plan (**Figure 3-6a**), enlarged views of Building 1 and Building 2 (**Figure 3-6b** and **Figure 3-6c**), and their respective elevations (**Figure 3-6d** through **Figure 3-6g**) and landscaping (**Figure 3-6h** and **Figure 3-6i**).

Figure 3-6a: Precise Development Plan - Overall Site Plan

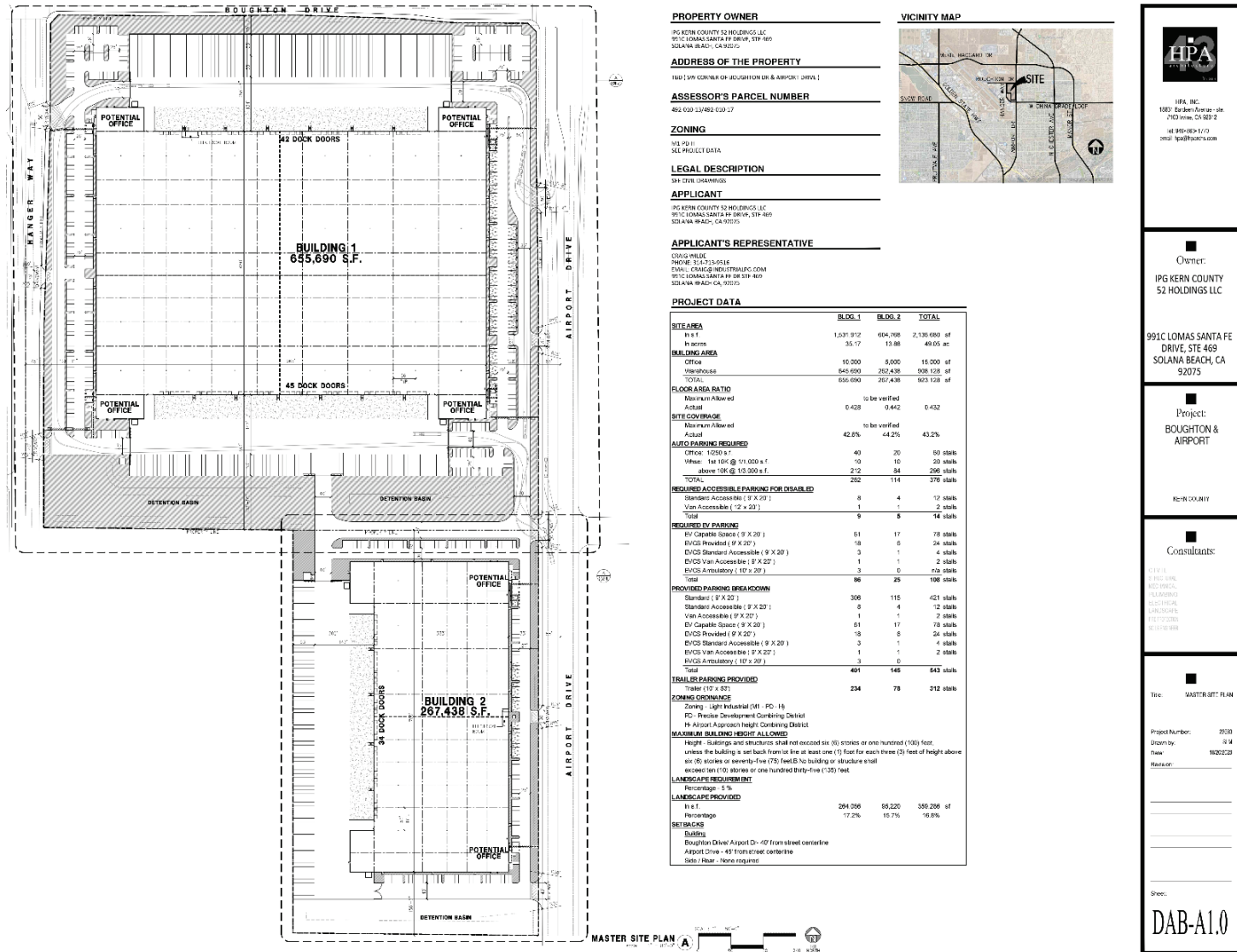


Figure 3-6b: Precise Development Plan - Building 1 Site Plan

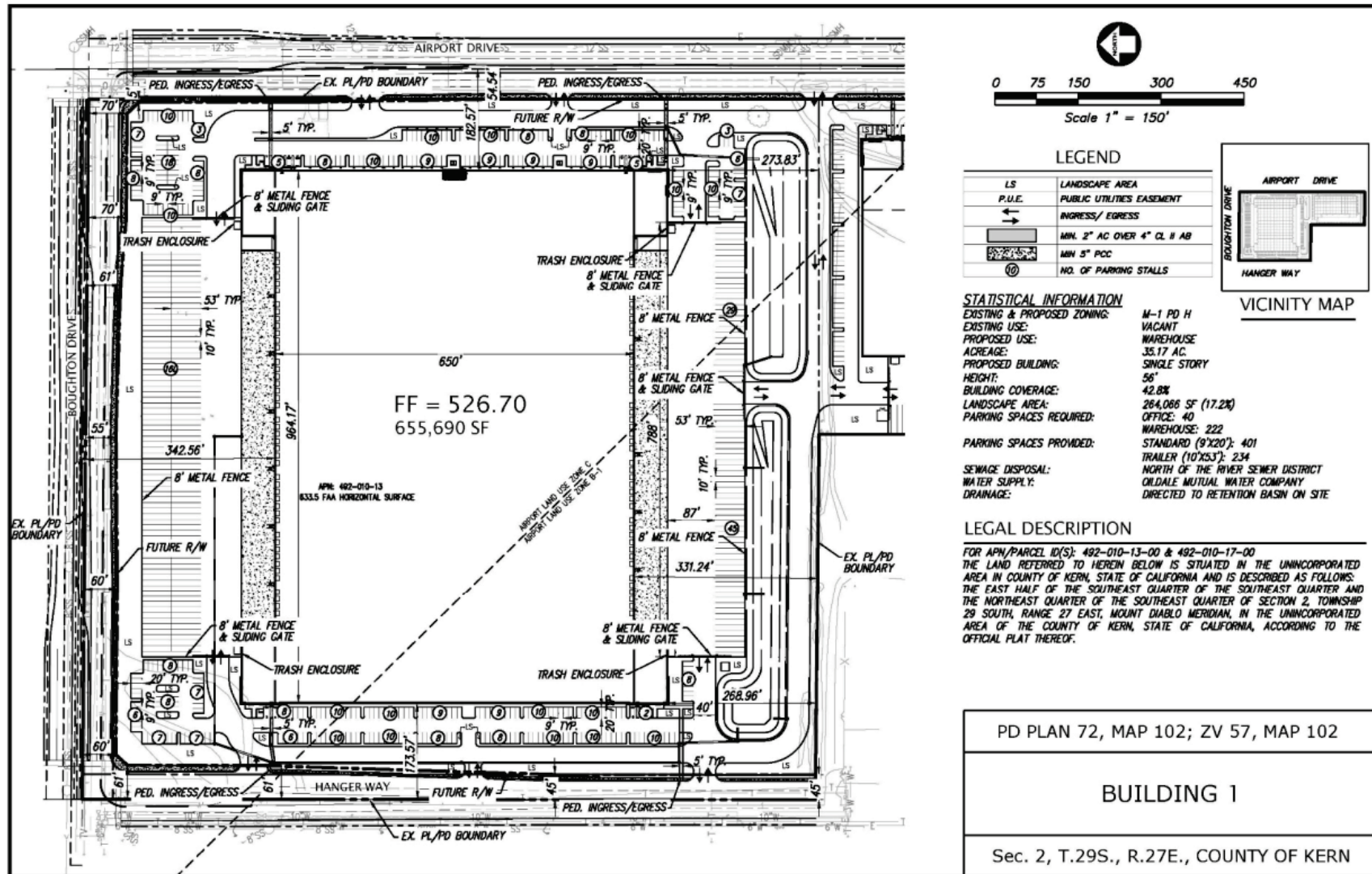


Figure 3-6c: Precise Development Plan - Building 2 Site Plan

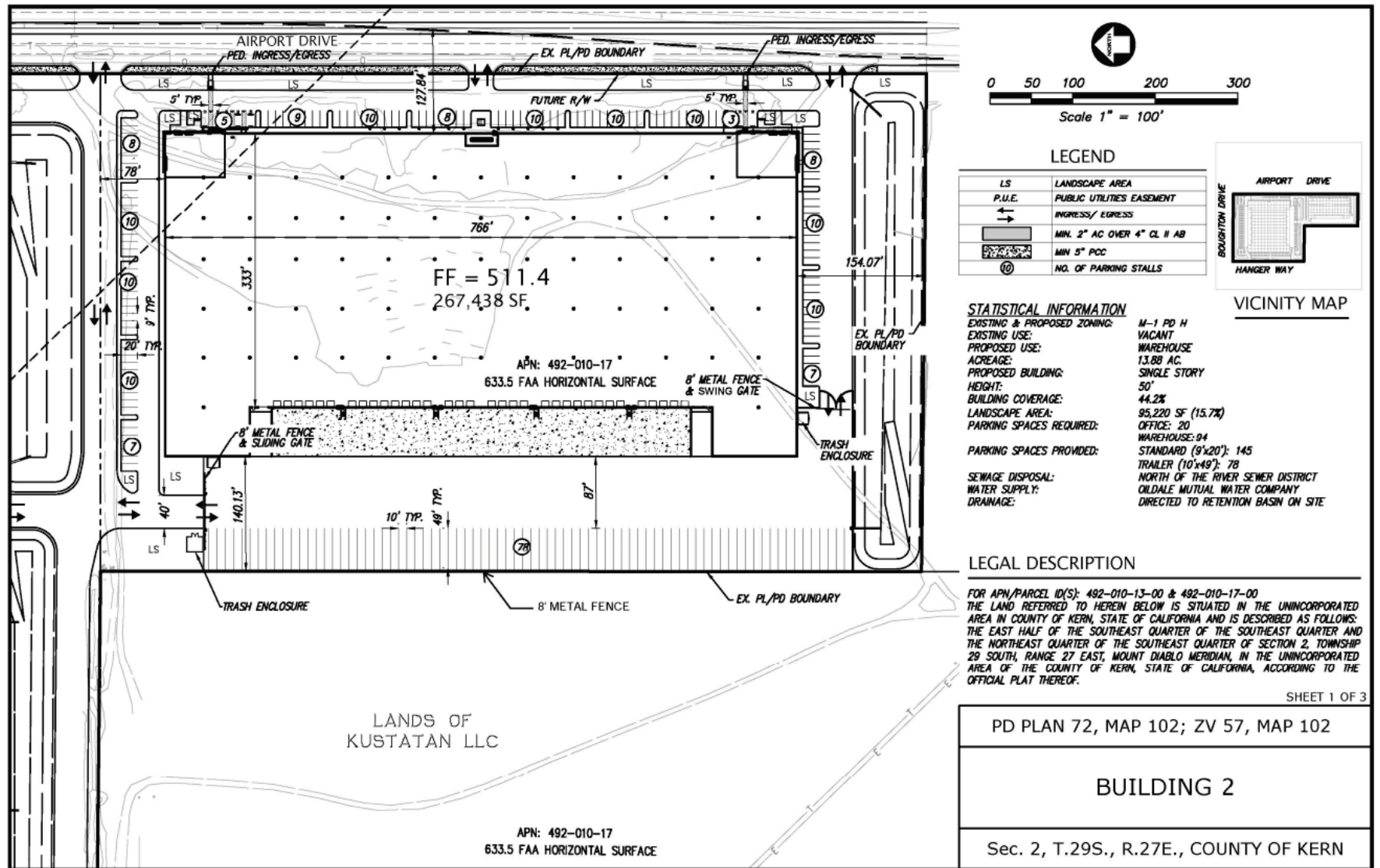


Figure 3-6d: Precise Development Plan - Building 1 Engineered Elevations

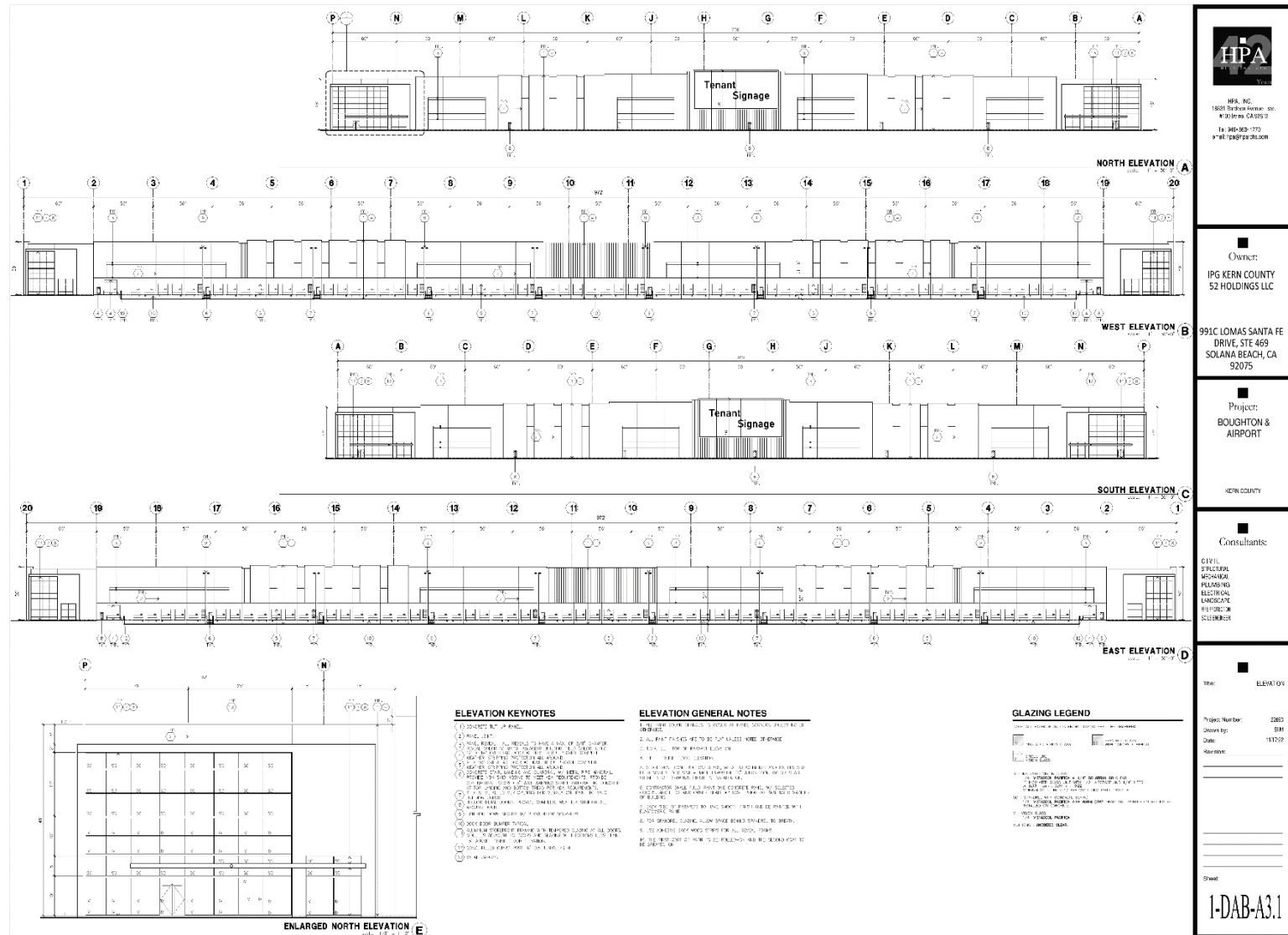


Figure 3-6e: Precise Development Plan - Building 2 Engineered Elevations

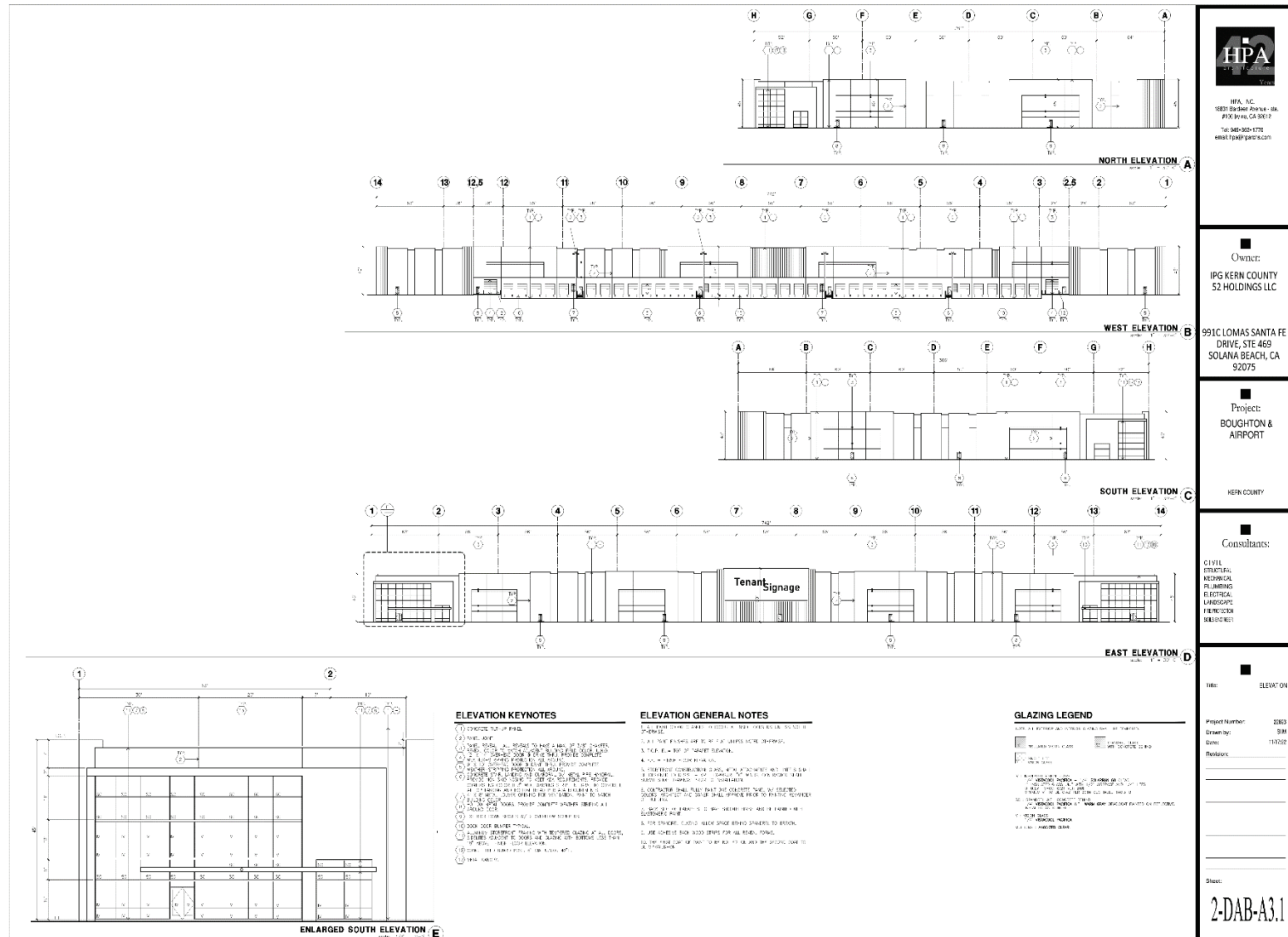
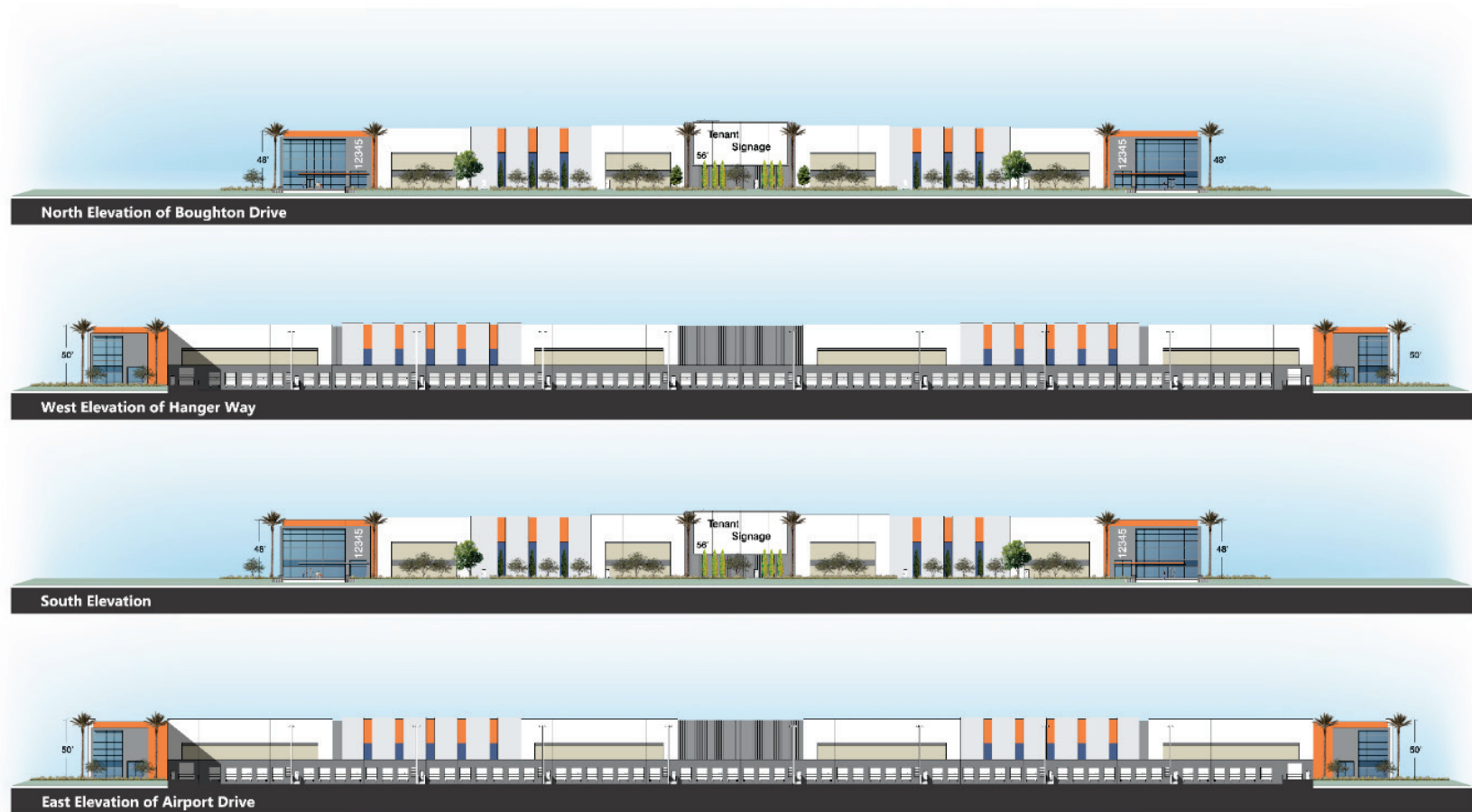
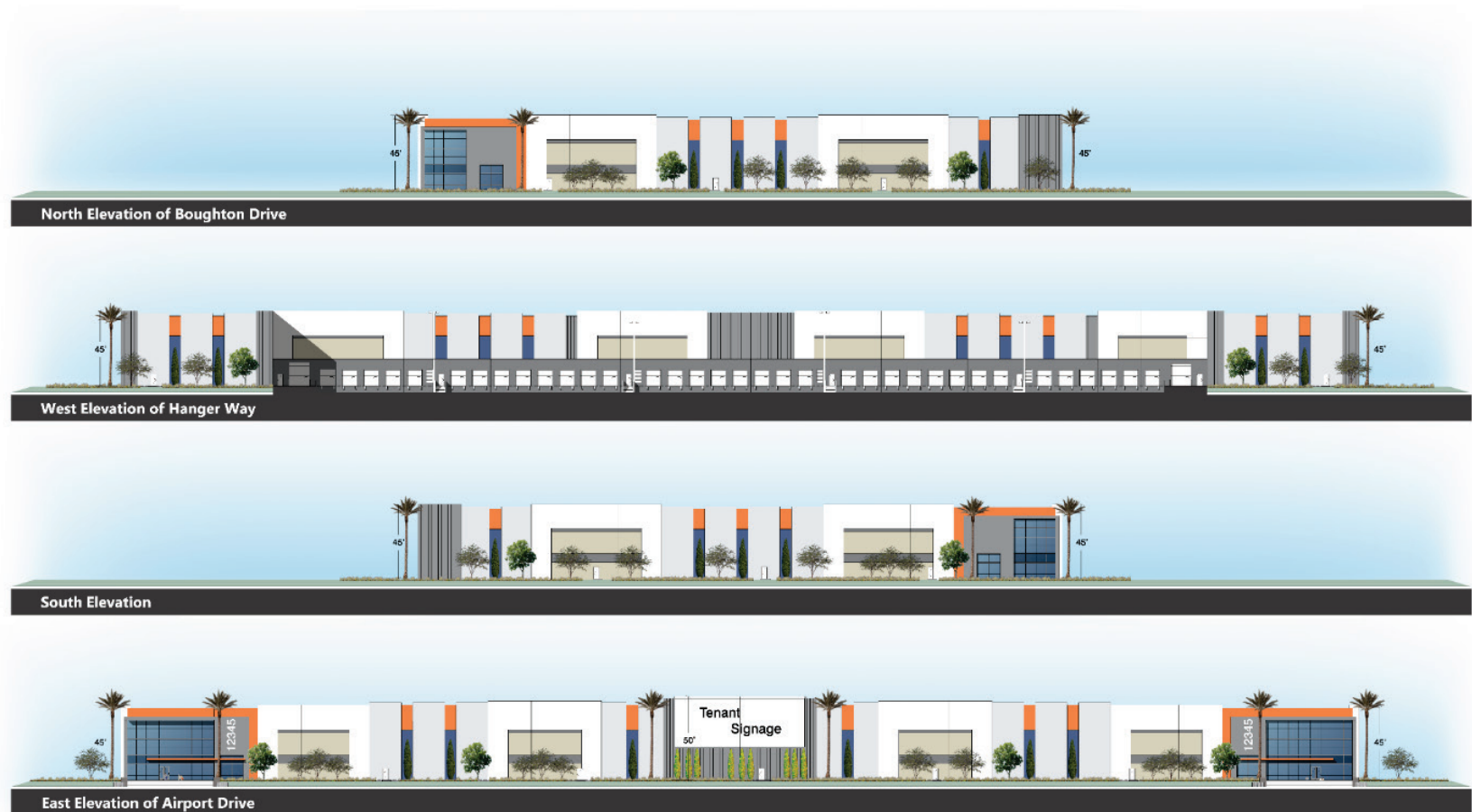


Figure 3-6f: Precise Development Plan - Building 1 Elevations



Conceptual Elevations Building 1 - 40ft clear
HPA **AIRPORT DRIVE & BOUGHTON DRIVE**
 Kern County, CA #22603 | 11.17.2022

Industrial Property
 Group, Inc.

Figure 3-6g: Precise Development Plan - Building 2 Elevations

Conceptual Elevations Building 2 - 36ft clear
HPA **AIRPORT DRIVE & BOUGHTON DRIVE**
Kern County, CA #029093 | 11.17.2022

Industrial Property
Group, Inc.

Figure 3-6h: Precise Development Plan - Building 1 Landscape Plan

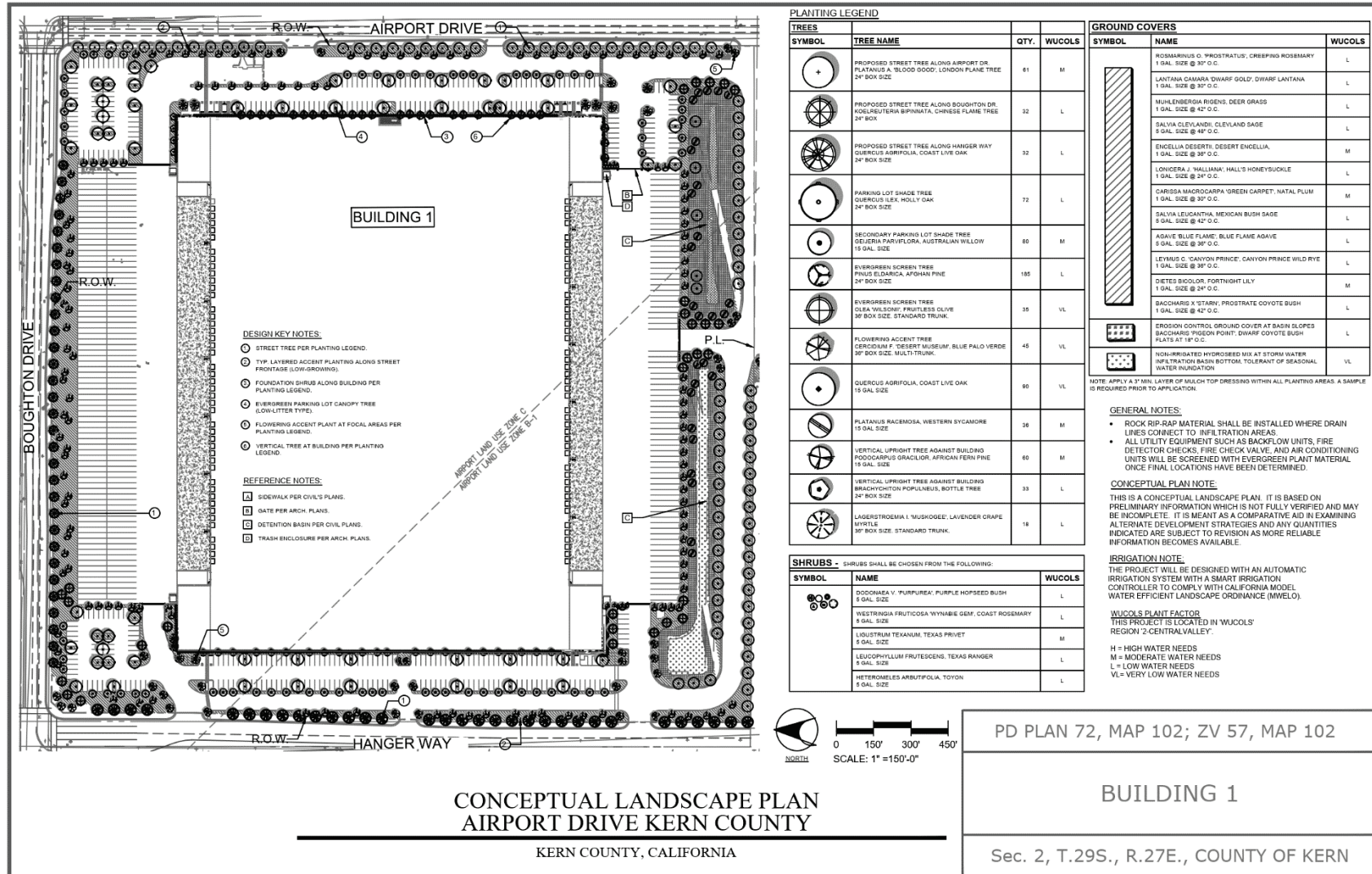
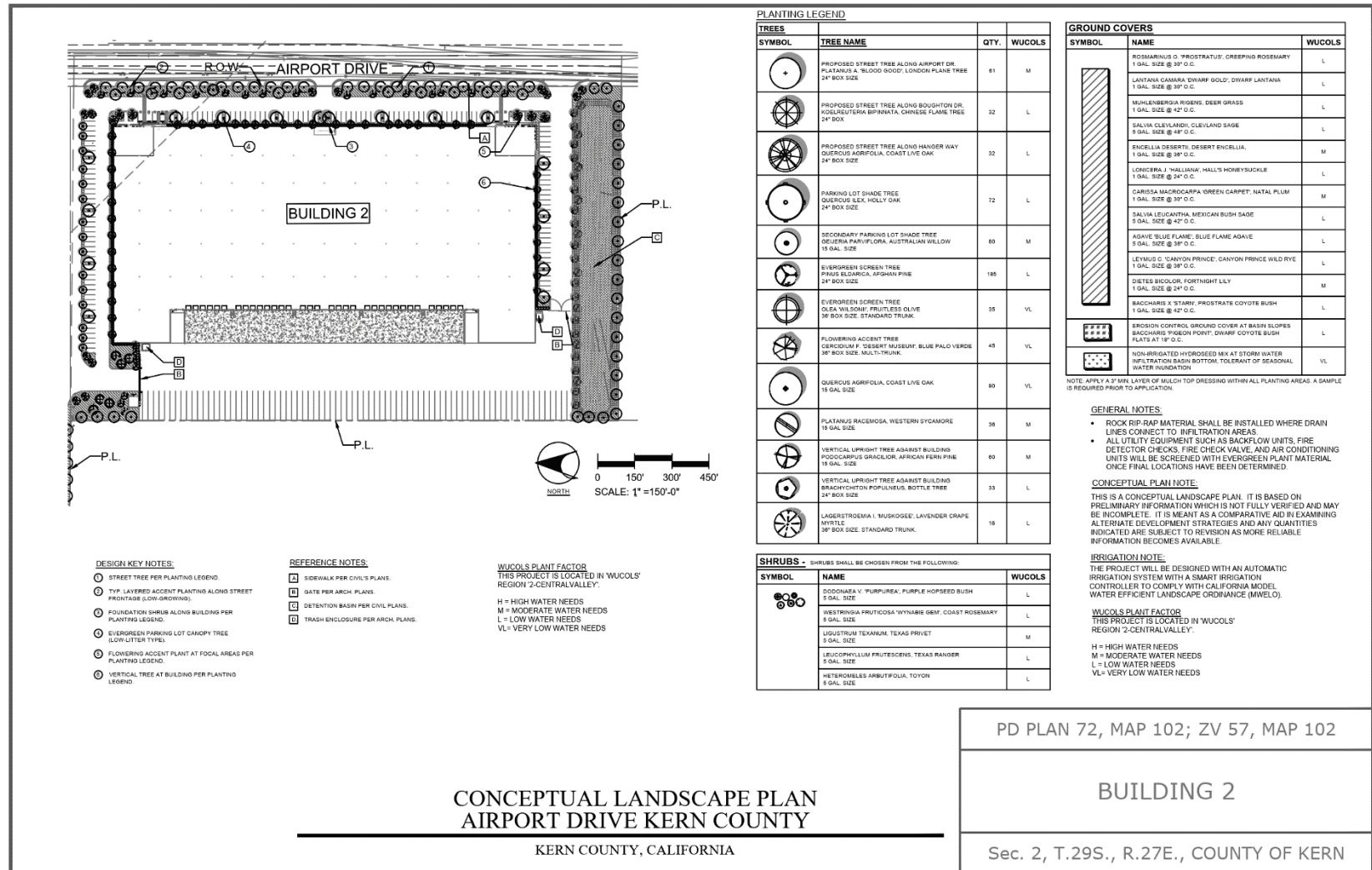


Figure 3-6i: Precise Development Plan - Building 2 Landscape Plan



Warehouse Buildings – The 923,130-square-foot facility includes two single-story warehouses.

Building 1

- Site area of 1,631,912-square-foot site area or 35.17 acres
- Building area of 655,690 square feet
 - 10,000 square feet of office space
 - 545,690 square feet of warehouse
- Trailer Parking Total: 234 stalls (10 feet by 53 feet)
- Standard Automobile: 401 (9 feet by 20 feet)
- Accessible Parking Total: Nine stalls
 - Eight standard stalls (9 feet by 20 feet)
 - One van accessible stall (12 feet by 20 feet)
- Electric Vehicle (EV) Parking Total: 86 stalls
 - Electric Vehicle Capable Space (EVCS): 61 stalls
 - EVCS Provided: 18 stalls
 - EVCS Standard Accessible: three stalls
 - EV Van Accessible: one stall
 - EVCS Ambulatory: three stalls
- Loading Docks
 - 45 on the northern side
 - 45 on the southern side

Building 2

- Site area of 604,756-square-foot site area or 13.86 acres
- Building area of 267,438 square feet
 - 5,000 square feet of office space
 - 262,440 square feet of warehouse
- Trailer Parking Total: 78 stalls (10 feet by 49 feet)
- Standard Automobile: 145 (9 feet by 20 feet)
- Accessible Parking Total: five stalls
 - Four standard stalls (9 feet by 20 feet)
 - One van accessible stall (12 feet by 20 feet)

- EV Parking Total: 25 stalls
 - EV Capable Space: 17 stalls
 - EVCS Provided: six stalls
 - EVCS Standard Accessible: one stall
 - EV Van Accessible: one stall
 - EVCS Ambulatory: zero stalls

Building 1 and Building 2 Total:

- Site area of 2,136,680-square-foot site area or 49.05 acres
- Building area of 923,130 square feet
 - 15,000 square feet of office space
 - 908,130 square feet of warehouse
- Parking Total:
 - Automobile: 543 stalls
 - Truck Trailer 312 stalls
 - Accessible: 14 stalls
 - EVCS: 108 stalls
- Trailer Parking Total: 312 stalls (10 feet by 53 feet)
- Accessible Parking Total: 14 stalls
 - 12 standard stalls (9 feet by 20 feet)
 - 2 van accessible stall (12 feet by 20 feet)
- EV Parking Total: 108 stalls
 - EV Capable Space: 76 stalls
 - EVCS Provided: 24 stalls
 - EVCS Standard Accessible: four stalls
 - EV Van Accessible: two stalls
 - EVCS Ambulatory: three stalls

Additional Site Components

As a facility that is intended to serve trucks exclusively, development would include truck doors at each warehouse. In total, there would be 114 dock-high doors and 10 grade-level doors, totaling 124 truck doors. The site has been designed so no truck doors face the adjacent residential properties. Trash enclosures would be located throughout the site, with four enclosures at Building 1 and two enclosures at Building 2.

Project Site Access and Parking

The Project would include off-site improvements along Airport Road, Boughton Road, and Hanger Way. These include right-of-way dedications and Project frontage improvements. The existing roads would be improved with new pavement, curb and gutter, and sidewalk. Additionally, signing and markings would be constructed for the new pavement delineations. For further discussions regarding required road improvements, see Section 4.17, *Transportation and Traffic*.

As illustrated on **Figure 3-6a**, access to the Project site is provided along the eastern boundary of the Project site at Airport Drive, with ingress and egress at both buildings. Building 1 would have additional ingress and egress at Hanger Way located on the western boundary of Parcel 1, providing Building 1 access at both the eastern and western boundaries of the site. Building 2 would receive access from Hanger Way on site through Parcel 1. Regional access to the Project site is provided by SR 99 and Merle Haggard Drive via Airport Drive.

Parking for employees at Building 1 would total 401 stalls at the eastern and western boundaries of Parcel 1, with ingress and egress at Airport Drive and Hanger Way. Pedestrian access is provided along both roadways. At Building 1, 234 truck trailer stalls would include 160 stalls on the northern side along Boughton Way and 74 stalls on the southern side between Buildings 1 and 2. At Building 2, a total of 145 standard stalls for employees would be located at the northern, eastern, and southern boundaries of the site, with truck trailer parking available on the western side with a total of 78 stalls for trailers. Access to Building 2 would be provided via Airport Drive with pedestrian ingress and egress, and on-site vehicular access from Parcel 1 off Hanger Way. In total, the site would have 312 truck trailer stalls and 543 standard automobile parking spaces.

Site Security

The Project would operate 24 hours a day, 7 days a week as a warehouse facility. Security would include an 8-foot metal fence enclosing the entire developed area, with an 8-foot sliding fence and sliding gate to enclose truck trailer parking. An 8-foot metal fence and sliding gate are also proposed between Building 1 and Building 2 vehicular access.

Lighting would be designed to maximize employee safety and security while complying with county standards to confine light spread within the Project site. Proposed lighting would adhere to the requirements of Chapter 19.81 Outdoor Lighting “Dark Skies Ordinance” of the Kern County Municipal Code, which promotes the reduction of unnecessary light and glare, the reduction of light spillover onto adjacent properties, and energy conservation through the reduction of excessive or unwanted outdoor lighting. Lighting would be located throughout the proposed parking areas.

Landscaping

The Project would include approximately 359,286 square feet (8.25 acres) of landscaping and irrigation, which would consist primarily of drought tolerant and low maintenance plants. Detention basins are proposed south of Building 2, and in the central portion of the site between Buildings 1 and 2 located near parking. Islands with canopy trees would be provided to reduce the heat island effect. Landscaping would also be used to provide visual screening where needed. Landscaping would exceed the 5% landscaping requirement of Section 19.86.060 of the Kern County Zoning Ordinance. There are no existing on-site trees and, therefore, no trees would need to be removed.

3.7.2 Construction Activities

The construction phase is anticipated to last approximately 24 months and grading is anticipated to last approximately 60 days. Construction is anticipated to begin in December 2024, and conclude in November 2026, with operation proposed to commence in 2026. Should commencement of construction be delayed, the start month of December 2024 represents a conservative estimate for this Draft EIR.

The typical construction activities would occur from 7 a.m. to 8 p.m. Monday through Friday. Additional hours and days may be necessary to facilitate the schedule. Noise generated from construction shall be prohibited between 9 p.m. and 6 a.m. on weekdays and between 9 p.m. and 8 a.m. on weekends. Construction activities would consist of site preparation, grading, building construction, paving, and architectural coating. During the construction of the Project, water would be required for common construction-related purposes, including dust suppression, soil compaction, and grading. Construction water would be transported via truck and is expected to be sourced from Oildale Mutual Water Company. Dust control water may be used for ingress and egress of on-site construction vehicle equipment traffic and the construction of the warehouse infrastructure. Typical equipment associated with these construction activities would be used such as bulldozers, motor graders, front end loaders, and cement and dump trucks. Any construction work performed outside of the normal work schedule would be coordinated with the appropriate agencies and would conform to the MBGP and the Kern County Noise Ordinance (Chapter 8.36).

The on-site construction workforce would consist of up to 503 full-time equivalent jobs; however, the average daily workforce would vary depending upon the stage of construction. The average daily workforce would include construction, supervisory, support, and construction management personnel on site during construction. It is anticipated that the construction workforce would commute to the Project site each day from local communities and report to the designated construction staging yards before the start of each workday. Parking for construction personnel would be provided on the site. Portable toilets would be used and would be maintained by a private off-site company during the construction period. The anticipated route for construction activities, including deliveries will be from SR 99 to Merle Haggard Drive to Airport Drive to Boughton Drive to Hanger Way.

During construction, the building contractor would arrange to have trash, construction recycling, and regular recycling bins delivered to the site in accordance with Kern County Building Code

requirements and guidelines. During construction, every effort would be made to minimize packaging and construction waste. Construction recycling, regular recycling, and nonrecyclable trash would be regularly picked up during the construction period.

Hazardous materials used for construction would be typical of most construction projects of this type. Materials would include small quantities of gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, ethylene glycol, dust palliatives, herbicides, and welding materials and supplies. A hazardous materials business plan would be provided to the Kern County Environmental Health Services Division, Hazardous Materials Section. The hazardous materials business plan would include a complete list of all materials used on site and information regarding how the materials would be transported and in what form they would be used. This information would be recorded to maintain safety and prevent possible environmental contamination or worker exposure. During Project construction and operation, safety data sheets for all applicable materials present at the site would be made readily available to on-site personnel.

To ensure minimum exposure of construction workers to hazardous materials (for example, construction-related fuels and paints) and other hazardous materials, construction activities would comply with applicable worker protection laws and regulations, including the Occupational Safety and Health Act, Title 9 of the Code of Federal Regulations, and Title 8 of the California Code of Regulations (CCR). The construction contractor selected for the Project would ensure that construction workers are trained in accordance with local, state, and federal requirements for handling hazardous materials.

3.7.3 Project Operations and Maintenance Activities

Within the 49.05-acre site, the Project would result in an approximate total building coverage of 43%, or roughly 923,130 total square feet. The proposed facility would operate 24 hours a day, 365 days a year. The facility would employ approximately 437 employees throughout up to three shifts, with additional indirect and induced economic impacts from the Project supporting approximately 159 additional jobs. The Project is anticipated to generate approximately 371 daily truck trips. There would be eight entrances to the Project, five off Airport Drive and three off Hanger Way. Once operational, the Project would use standard equipment such as electric forklifts and pallet jacks. The following subsections provides additional operational details.

Utilities and Infrastructure

The Project would be served with potable water provided by the Oildale Mutual Water Company. Service laterals would be extended from an existing water line located within Airport Road. The Project would be served by the North of River Sanitary District. Electricity and natural gas services would be provided by Pacific Gas and Electric Company. Service laterals would be extended to the Project site from existing utility facilities along Boughton Drive and Airport Drive. The Project would install an on-site storm drainage system consisting of inlets, underground piping, and surface and underground basins. Runoff would drain to retention basins located on the south side of each building within the boundaries of the Project site. The basins would be designed to accommodate a 100-year storm event and would detain runoff and release it at a rate no greater than the pre-

development condition of the Project site. The Project would be required to retain the stormwater per Kern County's drainage requirements and all other applicable standards.

Solid and Non-Hazardous Waste Disposal

The Project would produce a small amount of waste associated with maintenance activities, which may include typical refuse generated by office and warehouse uses. Most of these materials would be collected and delivered back to the manufacturer or recyclers. Nonrecyclable waste would be placed in covered dumpsters and removed regularly by a certified waste-handling contractor for disposal at a Class III landfill. The closest Class III municipal landfill is the Bena Sanitary Landfill located approximately 16 miles southeast of the site, whereas the Shafter-Wasco Sanitary Landfill is the next closest at approximately 21 miles northwest of the site.

Hazards and Hazardous Materials Compliance

The Project would produce a small amount of hazardous waste associated with maintenance activities that may include paint, solvents, cleaners, and waste oil. Workers would be trained to properly identify and handle all hazardous wastes. Fuels and lubricants used in operations would be subject to the Spill Prevention, Containment, and Countermeasure Plan to be prepared for the Project. Hazardous waste would be recycled or disposed of at a permitted and licensed treatment or disposal facility, or both. All hazardous waste shipped off-site for recycling or disposal would be transported by a licensed and permitted hazardous waste hauler and disposed of at an approved location.

Interior Storage of Wholesale and Bulk Storage of Materials

The Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements to accommodate specialized storage for products as described in **Section 3.7.1**. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (for example, building, fire, and plumbing codes). Outdoor storage is not proposed as part of this project.

For zoning, the Project may be occupied by a tenant specializing in the wholesale distribution of tire and tire accessories that would be shipped off-site for the retail market. This specific type of occupancy would typically require interior warehousing spaces to be equipped with unique fire-prevention fixtures, limitations on stacking heights. Nonetheless, storage of tires on site would be incidental to the proposed warehouse and distribution use, which is permitted on a by-right basis in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District. Any unique recommended specifications related to interior safety design offered by agencies, such as the Kern County Fire Department, during the review of this document or during the public hearing process will be incorporated as a development requirement accordingly.

3.8 Entitlements Required

The Kern County Planning and Natural Resources Department as the Lead Agency (per the CEQA Guidelines Section 15052) for the Project has staff responsibility for the preparation of the Draft EIR and recommendations to the decision-makers on the Project. To implement this Project, the Project proponent may need to obtain discretionary and ministerial permits and approvals including the following:

3.8.1 Federal

- Federal Aviation Administration
 - Determination of No Hazard to Air Navigation

3.8.2 State

- Central Valley Regional Water Quality Control Board
 - National Pollution Discharge Elimination System Construction General Permit
 - General Construction Stormwater Permit (Preparation of a Stormwater Pollution Prevention Plan)
- California Department of Transportation
 - Right-of-Way Encroachment
 - Permit for Transport of Oversized Loads (if required)

3.8.3 Local

- Kern County
 - Certification of the Final EIR
 - Adoption of 15091 Findings of Fact and 15093 Statement of Overriding Considerations
 - Adoption of Mitigation Monitoring and Reporting Program
 - Approval of a Precise Development Plan
 - Approval of a Zone Variance
 - Approval of Kern County Grading and Building Permits
 - Approval of Kern County Encroachment Permits
 - Approval of a Fire Safety Plan

- San Joaquin Valley Air Pollution Control District
 - Authority to Construct
 - Construction Fugitive Dust Control Plan
 - Permit to Operate
 - Indirect Source Rule and Voluntary Emission Reduction Agreement
 - Other permits as required

3.9 Cumulative Projects

CEQA requires that a EIR evaluate a project's cumulative impacts. Cumulative impacts are the Project's impacts combined with the impacts of other related past, present, and reasonably foreseeable future projects. As set forth in the CEQA Guidelines, the discussion of cumulative impacts must reflect the severity of the impacts, as well as the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the Project alone. As stated in CEQA, Public Resources Code, Section 21083(b) (2), "a project may have a significant effect on the environment if the possible effects of a project are individually limited but cumulatively considerable."

According to the CEQA Guidelines:

"Cumulative impacts" refer to two or more individual effects, which, when considered together, are considerable and which compound or increase other environmental impacts.

- (a) The individual effects may be changes resulting from a single project or a number of separate projects.*
- (b) The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (CCR [California Code of Regulations], Title 14, Division 6, Chapter 3, §15355).*

In addition, as stated in the CEQA Guidelines, it should be noted that:

"The mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." (CCR, Title 14, Division 6, Chapter 3, Section 15064[I][5]).

Cumulative impact discussions for each environmental topic area are provided at the end of each technical analysis contained within Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, under "Impacts and Mitigation Measures." As previously stated, and as set forth in the CEQA Guidelines, related projects consist of "closely related past, present, and reasonably

foreseeable probable future projects that would likely result in similar impacts and are located in the same geographic area” (CCR, Title 14, Division 6, Chapter 3, Section 15355).

The geographic scope for the cumulative impact analysis considers anticipated development to occur within 6 miles of the Project vicinity. For each environmental topic area, cumulative effects are assessed differently. For example, the San Joaquin Valley Air Pollution Control District (SJVAPCD) requires using a 1-mile radius to identify the cumulative effects of hazardous air pollutant emissions as well as most odor sources. The SJVAPCD also recommends a one-mile limit for hazardous air pollutants because such emissions primarily affect individuals who reside or work within the immediate vicinity (1 mile) of the emissions source. However, the Kern County Planning and Natural Resources Department’s Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports requires a 6-mile radius to assess cumulative impacts because developments in rural areas tend to affect a larger geographical area than developments located in urban areas. Kern County, City of Bakersfield, and City of Shafter files were reviewed to determine the number of permitted or planned projects within the 6-mile radius, as well as similar projects beyond 6 miles but within the same air basin.

The cumulative analysis within each environmental resource section of Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this Draft EIR is based on a qualitative cumulative analysis, which includes all of the projects located within a 6-mile radius of the Project site, as well as growth projections to the Year 2030. Different resource-specific analyses use this 6-mile radius unless specific methodology deems other supplemental approaches are appropriate. Some projects that have initiated applications but have not been deemed complete for review by Kern County or the City of Bakersfield may be excluded from this analysis because insufficient information is available to analyze cumulative effects.

Cumulative projects planned within a 6-mile radius of the Project site and cumulative industrial projects planned within Kern County are identified in **Table 3-4** and illustrated on **Figure 3-7**. These projects were considered in the analysis of cumulative conditions and impacts.

Table 3-4: Cumulative Projects List

Name	Project Location	Project	Zone Map	Section/Township/Range	Approx. Acreages	Status
1. Malibu Vineyards	34344 Imperial Avenue, Bakersfield, CA	Industrial Park/Distribution Warehousing	80 and 81	Section 24, Township 28, Range 26	739	EIR Circulation
2. N/A	6400 Price Way, Bakersfield, CA	Warehouse and outdoor industrial storage yard	102	Section 22, Township 29S, Range 27E	N/A	applied
3. PD 34, Map 102-10	7117 Dole Court, Bakersfield, CA	Trucking facility with truck service, repair, and truck wash	102-10	Section 10, Township 29S, Range 27E	10.5	Applied

Name	Project Location	Project	Zone Map	Section/ Township/ Range	Approx. Acreages	Status
4. ZCC, Map 102	5950 State Road, Bakersfield, CA	Industrial retail operations	102	Section 11, Township 29S, Range 27E	0.6	Applied
5. N/A	0 Downing Avenue, Bakersfield, CA	Warehouse and office	102	N/A	3.51	In Review
6. PD 86, ZV 24	3017 Fruitvale Avenue, Bakersfield, CA	Office warehouse for industrial services	102	Section 21, Township 29S, Range 27E	2.35	Applied
7. Commerce Construction Co. by John R Burroughs	SE corner of Imperial Ave and Hwy 65	Four warehouse buildings for passenger vehicles and trailers	81	Section 33, T. 28S/ R.27ESE	266	Deemed Complete
8. PD Mod	Intersection of Carrier Parkway Avenue and James Road, Bakersfield, CA	Concrete tilt-up warehouse	81-35	Section 35, Township 28S, Range 27E	N/A	Applied
City of Shafter						
9. Tract 7244 – Phase 1	Marcona Preserve Specific Plan Area	Development Agreement, Improvement Agreement, CFD Annexation, Final Map for development of 188 SFR units	80	Section 36/T.28S/R. 27E	60.3	In review
10. Tract 7388 - Phase 2	Gossamer Grove Specific Plan Area	Final Map for 13 SFR units	81	Section 31/T.28S/R. 27E	2.2	In Review
10. Tract 7422	Gossamer Grove Specific Plan Area	Tentative Map for 1,251 SFR units	81	Section 31/T.28S/R. 27E	352.0	In Review
10. Tract 7447	Gossamer Grove Specific Plan Area`	Tentative Map for 147 SFR lots	81	Section 31/T.28S/R. 27E	32.2	In Review
11. Wonderful Industrial Park Expansion	Northeast Corner of Seventh Standard Road/Santa Fe Way	Expansion of Development of industrial and logistics center	80	Multiple Sections; T.28S/R.26 E	1,800	In Review
City of Bakersfield						
12. Rosedale Ranch Trade and Transportation Park	Southeast corner of Seventh Standard Road/ Santa Fe Way; North of Olive	Drive development of logistics center	101	Multiple sections; T.29S/R.26 E	1,600	In Review

Name	Project Location	Project	Zone Map	Section/ Township/ Range	Approx. Acreages	Status
	Drive					
13. GPA/ZCC 22-01278; PDR 22-0073	North of Hwy 178 between Vista Montana Drive and Valley Street	Mini warehouse storage	104_16	Section 16/T.29S/R. 29E	44.32	DENIED
14. GPA/ZCC 21-0136	612 Fairview Road	LR to HMR; R-1 to R-2	124_19	Section 19/T.30S/R. 28E	17.32	Applied
15. GPA/ZCC 21-0322	7100 South H Street	LR/LMR to GC; R-1/R-1 PUD to C-2/PCD	124_30	Section 124_30/T.30S/R.28E	25.83	Approved
16. GPA/ZCC 21-0302	9700 and 9850 Camino Media	OC to HMR; C-O to R-2	123	Section 6/T.30S/R.27E	11.22	Approved
17. GPA/ZC 21-0326	3300 Rio Mirada Drive	HC to HR; M-1 to R-4	102-14	Section 14/T.29S/R. 27E	4.33	Approved
18. GPA/ZC 22-0125	SW Corner of Berkshire Road and Ashe Road	336-unit apartment complex	123	Section 28/T.30S/R. 27E	19.96	Approved
19. GPA/ZC 20-0109	4021 Mt. Vernon Ave; Southeast Corner of Mt Vernon Frontage Road and Church Avenue	OC to HR; C-O to R-3	103	Section 15/T.29S/28E	0.68	Applied
20. GPA/ZC 20-0339	1/4 mile south of Renfro on Santa Fe Way	LR to LI; R-1 to M-1	101-14	Section 14/T.29S/R. 26E	3.5	Approved
21. GPA/ZC 20-0397	2323 Chester Lane; Southeast corner of Chester Lan and A Street	GC to HR; R-2/R-3 to R-4	102_36	Section 36/T.29S/R. 27E	0.64	Approved
22. GPA/ZC 21-0008	1108 H Street; Southeast Corner of California Avenue and H Street	OC to GC; C-O to C-1	103	Section 31/T.29S/R. 28E	0.15	Approved
23. GPA/ZC 20-0172	Northwest corner of Fairfax and College Avenue	LR to HMR/GC; R-1 to R-2/C-2	103	Section 24/T.29S/28E	15.45	Applied
24. GPA/ZC 23-0015; CUP	Southeast Corner of	LR/LMR/HMR/MU C/GC to LI; R-1/R-	101	Section 3/T.29S/R2	920	Approved

Name	Project Location	Project	Zone Map	Section/ Township/ Range	Approx. Acreages	Status
23-0023	Seventh Standard and Rudd Avenue	1-PUD/R-2-PUD/C-1/C-2-P.C.D/DI to M-1; CUP for freight terminal		6E		
25. GPA/ZC 21-0179	South of Hosking Avenue and West of South H Street	LR to GC; R-1 to C-2-PCD	123_36	Section 36/T.30S/27 E	21.4	Approved
26. GPA/ZC 22-0027; CUP 22-0310	Southwest Corner of Seventh Standard and Rudd Avenue	LMR/HMR to LI; R-1-PUD/R-2-PUD to M-1; CUP for freight terminal	101	Section 3/T.29S/R2 6E	458.54	Approved
27. GPA/ZC 22-0421	2700 White Lane	GC to HR; C-2 to R-4	123	Section 13/T.30S/27 E	2.49	REFERRED BACK
28. GPA (Circ) 21-0089	Etchart Road between Shane Street and Jewetta	removed planned collector	101	Section 1/T. 29S/R.26E	n/a	approved
29. GPA (Circ) 21-0265	Southwest of Knudsen Drive/Hageman Road intersection, between Knudsen Drive and Seventh Standard Street	removed planned collector	102	Section 15/T .29S/R.26E	n/a	approved
30. GPA/ZC 22-0104	North of Fairview Road between Monitor Street and S. Union Avenue	LR to GC; R-1 to C-2-PCD	124_19	Section 19/T.30S/R. 28E	19.35	Approved
31. Majestic Gateway Industrial Project; GPA/ZC 21-0184	Northwest Corner of Hosking Ave and South H Street	GC to LI (90.5 ac); C-2/PCD to M-1 (56.75 ac portion) and C-2/PCD to PCD (33.75 ac portion)	123_25	Section 25/T.30S/R. 27E	90.5	Approved
32. GPA/ZC 22-0337; PDR 23-0331; ZC 23-0508	Northeast corner of South Allen Road and Pensinger Road	LR to HMR; R-1 to R-3/PUD; Circ delete Pacheco Road between South Allen and Buena Vista	122_23	Section 23/T.30S/R. 26E	80	Approved
33. GPA/ZC 23-0012	9407 South H Street; Northwest Corner of Taft	LR/GC to HMR; R-1 to R-3	123	Section 11/T.30S/R. 27E	5.65	Approved

Name	Project Location	Project	Zone Map	Section/ Township/ Range	Approx. Acreages	Status
	Hwy and South H					
34. GPA/ZC/PDR 22-0122	Southeast Corner of Hageman Road and Landco Drive	SR to GC; A to C-2/PCD; Truck Rental and Self-Storage	123_36	Section 36/T.30S/27 E	11.23	Approved
35. GPA/ZC 21-0284	North of Taft Hwy between Gosford Road and Ashe Road (Kaiser Permanente Sports Village)	HI to SI; M-3 to M-2	102_14	Section 14/T.29S/R. 27E	79.84	Approved
36. GPA/ZC 21-0383	westside of Renfro Road at Brimhall Road	GC to OS-P (25 ac portion) and OS-P to GC (28 ac portion); C-2/PCD to RE (25 ac portion) and RE to C-2 (28 ac portion) and C-2/PCD to C-2 (12 ac portion)	123	Section 33/T.30S/R. 27E	65	Approved
37. N/A	Taft Highway west of Highway 99	Conditional Use Permit: Truck stop	142	Section 1/ T.31S/R.27 E	16	In Review
38. N/A	South Union at Berkshire Road	General Plan Amendment and Zone Change	124	Section 29/ T.30S/28E	Unknown	In Review
39. N/A	Hosking Avenue at Wible Road	General Plan Amendment and Zone Change:	123	Section 35/ T.30S/27E	4	In Review
40. N/A	2901 Calloway Drive	Site Plan Review for 971-square-foot drive-thru coffee shop	102-19	Section 19/T.29S/R. 27E	0.39	In Review
41. N/A	9301-9315 Thistlewood Court	N/A	102-29	Section 29/ T.29S/R.7E	1.07	In Review
42. N/A	3925 Rosedale Highway	Site Plan Review for 4,990-square-foot retail building	102-26	Section 26/ T.29S/R.27. E	.39	In Review
43. N/A	7511 Rosedale Highway	Site Plan review for warehouse and office	102	Section 28/ T.29S/R.27 E	5.22	In Review
44. N/A	3220 Rio Mirada Drive	Site Plan Review for 971-square-foot drive-thru coffee shop	102-19	Section 19/ T.29S/R.27 E	.39	In Review

Name	Project Location	Project	Zone Map	Section/ Township/ Range	Approx. Acreages	Status
45. N/A	4420 Coffee Road	Site Plan review for an 1,811-square-foot addition (coffee shop with drive-thru)	102-16	Section 16/ T.29S/R.27 E	1.15	In Review
46. N/A	4601 Coffee Road	Site Plan Review for the addition of a new pad for a 1,906-square-foot drive-thru restaurant in a retail center	102	Section 17/ T.29S/R.27 E	.89	In Review
47. N/A	4733 Centennial Plaza Way	Site Plan Review for a 8,492-square-foot office building	102	Section 17/ T.29S/R.27 E	.74	In Review
48. N/A	5512 Knudsen Drive	Site Plan Review for a 39,648-square-foot medical outpatient facility	102-15	Section 15/ T.29S/R.27 E	10.11	In Review
49. N/A	2420 Wedding Lane	Conditional Use Permit for expansion of existing legal non-conforming mobile home park	102-28	Section 28/ T.29S/R.27 E	.20	In Review
50. N/A	9600 Retail Drive	Conditional Use Permit to allow operation of a cocktail bar	102	Section 20/ T.29S/R.27 E	.80	In Review
51. N/A	4301 Verdugo Lane	Conditional Use Permit to allow 200-unit complex in C-1 Zone	102	Section 18/ T.29S/R.27 E	3.88	In Review

Key:

Hwy = Highway

I-5 = Interstate 5

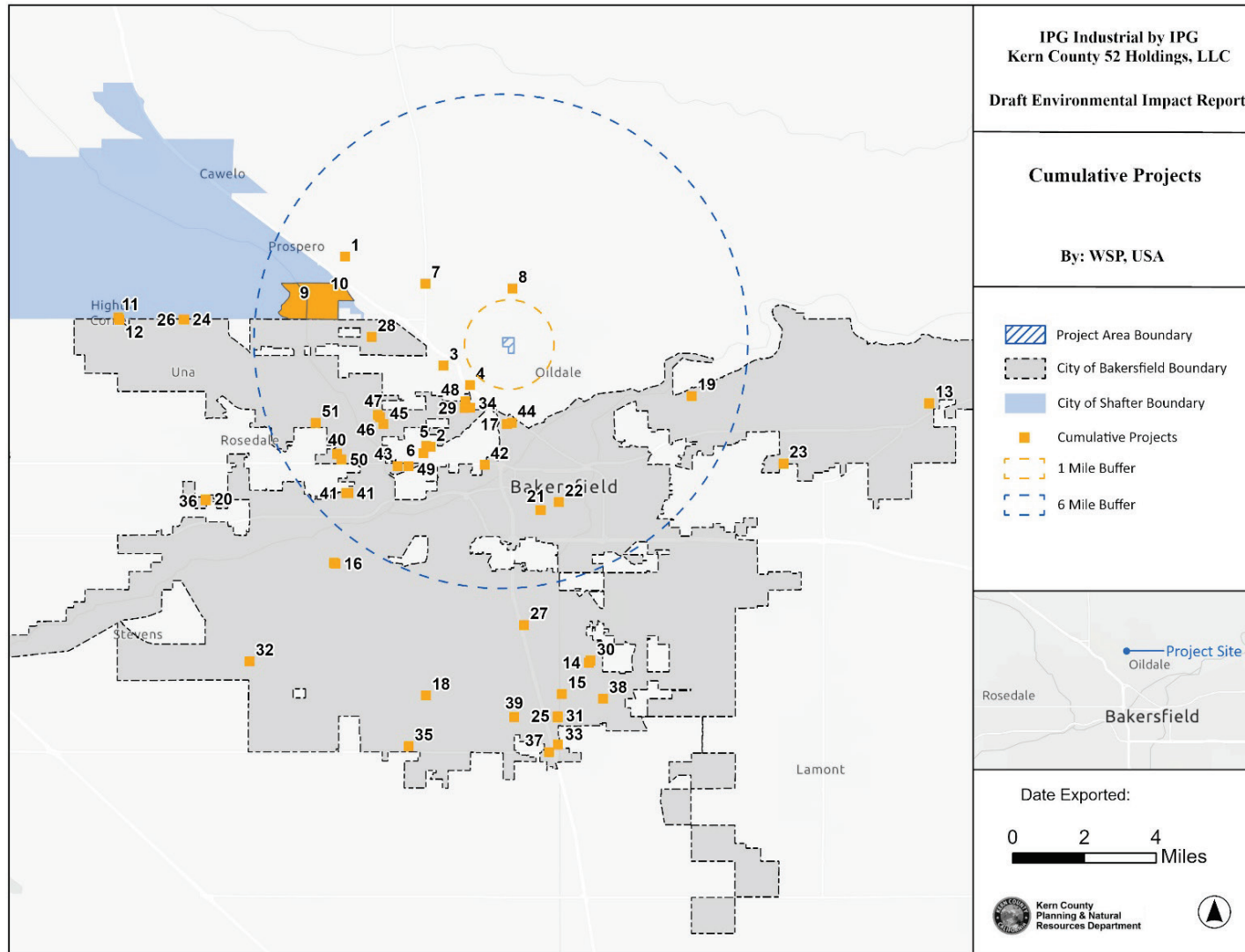
SR = State Route

GPA = General Plan Amendment

ZC = Zone Change

sf = square feet

Figure 3-7: Cumulative Projects Map



Chapter 4

Environmental Setting, Impacts, and Mitigation Measures

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Chapter 4

Environmental Setting, Impacts, and Mitigation Measures

Introduction

This chapter is devoted to resource topics. Impacts on a resource are evaluated for the project site in each section of this chapter. For each resource, a description of the environmental setting, including relevant data, is presented. The impacts of the project on the resource are evaluated in terms of significance, and mitigation measures are identified. As lead agency, Kern County is responsible for determining what mitigation measures are appropriate and feasible. Resource sections include:

Section 4.1 – Aesthetics

Section 4.2 – Agriculture and Forestry Resources

Section 4.3 – Air Quality

Section 4.4 – Biological Resources

Section 4.5 – Cultural Resources

Section 4.6 – Energy

Section 4.7 – Geology and Soils

Section 4.8 – Greenhouse Gas Emissions

Section 4.9 – Hazards and Hazardous Materials

Section 4.10 – Hydrology and Water Quality

Section 4.11 – Land Use and Planning

Section 4.12 – Mineral resources

Section 4.13 - Noise

Section 4.14 – Population and Housing

Section 4.15 – Public Services

Section 4.16 – Recreation

Section 4.17 – Transportation and Traffic

Section 4.18 – Tribal Cultural Resources

Section 4.19 – Utilities and Service Systems

Section 4.20 – Wildfire

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Section 4.1

Aesthetics and Visual Resources

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Section 4.1

Aesthetics and Visual Resources

4.1.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding aesthetics and visual resources. It also evaluates the impacts associated with the potential for the Project to degrade the existing visual character or quality of the proposed IPG Industrial Project (Project) site and its surroundings through changes in the existing landscape. Potential effects are evaluated relative to important visual features (for example, scenic highways, scenic features) of the existing visual landscape and its users. Degradation of visual character of a site is addressed through a qualitative evaluation of the changes to the aesthetic characteristics of the existing environment, and the Project-related modifications that would alter the visual setting. This section also identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the April 2024 visual simulations prepared by WSP, shown in Section 4.1.3, *Impacts and Mitigation Measures*, as these illustrate various representative views of the two buildings after buildout of the Project. The section is also informed by Google Street View images, to display a representative view of the Project site in its current state.

Visual Concepts and Terminology

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would alter the perceived visual quality of the environment a visual or aesthetic impact may occur.

The following terms and concepts are used in the discussion below to describe and assess the aesthetic setting and impacts from the Project:

Key Observation Point (KOP): One or a series of points on a travel route or at a sensitive use area, such as a residence, where the view of a project would be the most revealing.

Scenic Vista: An area identified or known for high scenic quality. Scenic vistas may be designated by a federal, State, or local agency. Scenic vistas can also include an area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing.

Scenic Highway: Any stretch of public roadway that is designated as a scenic corridor by a federal, State, or local agency.

Visual (Sensitive) Receptor: Any scenic vista, designated scenic highway, residence, or public recreational area located within the Project viewshed that provides people with views of a site. Sensitive receptors or sensitive viewpoints—viewer responses to visual settings are inferred from

a variety of factors, including distance and viewing angle, type of viewers, number of viewers, duration of view, and viewer activities. The viewer type and associated viewer sensitivity are distinguished among Project viewers in recreational, residential, commercial, military, and industrial areas. Viewer activities can range from a circumstance that encourages a viewer to observe the surroundings more closely (such as recreational activities), to discouraging close observation (such as commuting in heavy traffic).

Residential viewers typically have extended viewing periods and are generally considered to have high visual sensitivity. For this reason, residential views are typically considered sensitive. Viewers from public parks, recreational trails, and/or culturally important sites also have high visual sensitivities; therefore, such locations are considered sensitive viewpoints. Viewers in commercial, military, and industrial areas are not typically focused on the views and the areas do not promote enjoyment of views; therefore, viewers in these locations are assumed to have low sensitivity.

Viewing distance zones—the landscape is subdivided into three distance zones based on relative visibility from travel routes or observation points. The three zones are: foreground, middle ground, and background. The foreground zone includes areas less than 0.25 mile away, the middle ground zone includes areas 0.25 mile to 3 miles away, and the background zone includes areas beyond 3 miles (FHWA 2015).

Viewshed—The surrounding geographic area from which the Project is likely to be seen, based on topography, atmospheric conditions, land use patterns, and roadway orientations. “Project viewshed” is used to describe the area surrounding a Project site where a person standing on the ground or driving a vehicle can view the Project site.

Visual sensitivity—the overall measure of an existing landscape’s susceptibility to adverse visual changes. When viewing the same landscape, people may have different responses to that landscape and any proposed visual changes, based upon their values, familiarity, concern, or expectations for that landscape and its scenic quality. Because each person’s attachment to and value for a particular landscape is unique, visual changes to that landscape inherently affect viewers differently. Nonetheless, generalizations can be made about viewer sensitivity to scenic quality and visual changes.

Residents and recreational users (for example, hikers, equestrians, tourists) are expected to be highly concerned with scenery and landscape character. Local motorists who commute daily through the same landscape may have a moderate concern for scenery, while people who work within highly urbanized areas may generally have a lower concern for scenic quality or changes to existing landscape character.

The visual sensitivity of a landscape is affected by the viewing distances at which it is seen. The visual sensitivity of a landscape also is affected by the travel speed at which a person is viewing the landscape (high speeds on a highway, low speeds on a hiking trail, or stationary at a residence).

The same feature of a Project can be perceived differently by people depending on the distance between the observer and the viewed object. When a viewer is closer to a viewed object in the

landscape, more detail can be seen, and there is greater potential influence of the object on visual quality because of its form or scale (relative size of the object in relation to the viewer). When the same viewed object is viewed at background distances, details may be imperceptible but overall forms of terrain and vegetation are evident, and the horizon and skyline are dominant. In the middle ground, some detail is evident in the foreground and landscape elements are seen in context with landforms and vegetation patterns in the background. The same levels of sensitivity apply in this case as with close-up and further away views—views from cars at high speeds would be less sensitive to changes than views at low speeds because more details can be drawn from the landscape at lower speeds.

4.1.2 Environmental Setting

Regional Character

The Project site is located in the Kern County region of the San Joaquin Valley in California. Kern County's geography spans across mountainous areas, agricultural lands, and desert areas. Kern County consists of three general areas or regions – Valley Region, Mountain Region, and Desert Region. The county encompasses more than 5 million acres within these diverse geographic regions. It is located within the southern San Joaquin Valley, which is characterized by a flat valley with gentle rolling hills that sweep toward steep rolling alluvial fans near the west, south, and east of the valley near encapsulating rugged mountain ranges.

The valley contains a variety of wetlands and rivers, with a majority of sections containing facilities for agriculture and irrigation such as pumps and aqueducts. Several stream corridors that flow into the valley from the east, including the Kern River in the southern portion and the San Joaquin River in the northern portion, also contain natural riparian vegetation. However, most of the region consists of diverse agricultural croplands, orchards, and grazing lands, or oil and gas facilities. Views of agricultural lands are considered an important attribute of the county's visual character and quality.

In the more urbanized portions of the region, which tend to be dispersed along major routes such as State Route 99 and Interstate 5, a combination of residential, commercial, and industrial scenes dominate the views, with smaller amounts of recreational, open space, and other typical urban structures and activities.

Local Character

The Project site is located on approximately 49 acres and comprises two privately owned parcels in the central portion of unincorporated Kern County, California, adjacent to Meadows Field Airport. The Project vicinity is characterized by industrial and commercial uses (distribution, storage, and shipping centers), transportation (airport to the west), vacant land, and residential uses to the east of the Project site. The Project is within the unincorporated community of Oildale and is approximately 1.7 miles north of the incorporated City of Bakersfield and approximately 3.1 miles east of the incorporated City of Shafter. The Project is situated approximately 1.4 miles northeast of State Route (SR) 99, which provides regional access to the site, as does Merle Haggard

Drive via Airport Drive. Local access to the Project site is available via Airport Drive and Boughton Drive.

The Project and surrounding area can be described as relatively flat and exhibit little topographic variation with elevation of the ranging between approximately 495 feet above mean sea level to approximately 540 feet with a gentle north-eastern slope. The Project site is characterized by grassland vegetation common to the Mojave Desert region, due to the influence of arid climatic conditions, topography, desert soils, and past land uses. A native species, San Joaquin bluecurl was observed in several areas throughout the Project site (see mapping in Figure 4.4-2). Additionally, there are no mapped or observed jurisdictional aquatic features within the Project site.

Land uses immediately surrounding the Project site are varied and sparsely developed. The Project vicinity is characterized by industrial and commercial uses (distribution, storage, and shipping centers), transportation, vacant land, and residential uses primarily east of the Project site. The residential uses comprise single- and multifamily residences, and are located east of the Project site, with the nearest residence approximately 100 feet directly east. To the north, is Boughton Drive with vacant undeveloped land across Boughton Drive, which is similarly zoned for light industrial use. To the east, the Project boundary runs parallel to Airport Drive, with a mix of uses across Airport Drive including Derrel's Mini Storage, Park Meadows Apartments, and Fabulous Burgers. To the south is Skyway Drive, where a FedEx Ship Center, Epic Jet Center, and Airman Flight Training are opposite of Skyway Drive. To the west is Hanger Way, and approximately 0.6 mile away is Meadows Field Airport and other transportation related services.

Scenic Highways

According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, there are no designated State Scenic Highways within Kern County (Section 4.1.3, *Regulatory Setting*, provides more information on the State Scenic Highway Mapping System). There are three Eligible Scenic Highways in Kern County, all of which are located in the desert portion of eastern Kern County (Caltrans 2023). Route 1, which begins north of Mojave and continues to the Inyo County Line, consists of State Route (SR) 14 and State Highway 395. Route 2 consists of SR 58 between Mojave and Boron. Route 3 consists of 5 miles of SR 41 in northwest Kern County. The Project site would not be visible from any of these routes.

In addition to the State Scenic Highway Mapping System, the Kern County General Plan Circulation Element designates scenic routes and defines a scenic route as any freeway, highway, road, or other public right-of-way, which traverses an area of exceptional scenic quality and must be officially set as a Scenic Route by the Kern County Board of Supervisors or the State of California.

Lighting Environment

Light and Glare

Lighting effects are associated with the use of artificial light during the evening and nighttime hours. There is no existing site lighting on the Project site, and no structures are currently present on the Project site that would be a source of light. Furthermore, no sources of daytime glare occur on the site as it consists of vacant, industrially designated land. There is no off-site lighting beyond streetlamps fixed to stop light poles at several intersections on the streets surrounding the Project area and a couple overhead lights in nearby industrial building parking lots. There is no other local roadway lighting aside from the streetlamps at intersections on Airport Drive.

Glare is reflective light that can be visually unpleasant or possibly unsafe due to the potential for temporary blindness. Glare is primarily a daytime occurrence that may be caused by light from artificial sources or the sun reflecting off of light-colored or smooth, highly polished surfaces, such as metal, glass, water, or polished stone. Glare intensity varies depending on the source and intensity of the light, time of day, time of year, angle of reflectance, weather, atmospheric conditions, the reflectivity, color, and texture of material surface finish, length of exposure, nature and sensitivity of receptors, and other factors. There are developed areas surrounding the Project site, but these developments have minimal opportunities for glare to occur.

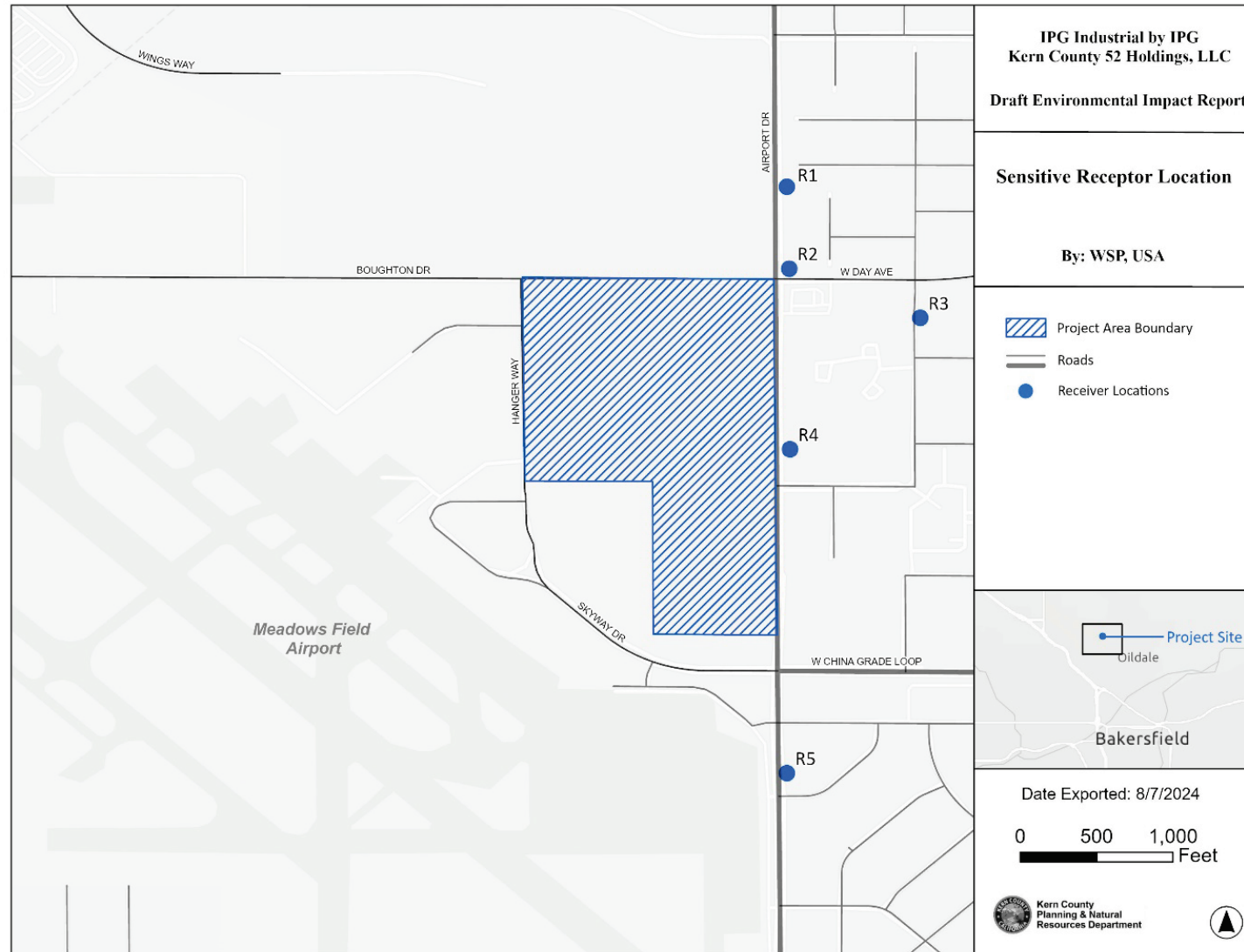
The nearest sensitive receptors are the Park Meadows Apartment community approximately 100 feet east of the Project site. Each sensitive receptor and proximity to the Project site is listed in **Table 4.1-1** with reference identification in relation to **Figure 4.1-1**. All sensitive receptors in the Project area are residential uses, including both single-family and multifamily dwelling units. These sensitive receptors may be affected by lighting generated as a result of the Project.

Table 4.1-1: Sensitive Receptors

Receptor ¹	Existing Land Use Designation	Proximity to Project Area
R1	Low Density Residential	667 feet northeast, on Greenwood Meadow Lane
R2	Low Density Residential	173 feet northeast, on Alhambra Meadow Court
R3	High Density Residential	809 feet east, on Meadow Grove Court
R4	General Commercial (current use is multifamily units)	102 feet east, on Park Meadows Avenue
R5	Low Density Residential	910 feet southeast, on Wingland Drive

Source: Airport Drive Warehouse Noise and Vibration Analysis, Urban Crossroads 2024

Figure 4.1-1: Sensitive Receptor Locations



4.1.3 Regulatory Setting

Federal

National Scenic Byways Program

The National Scenic Byways Program is part of the United States Department of Transportation, Federal Highway Administration (FHWA). The program was established under the Intermodal Surface Transportation Efficiency Act of 1991 and was reauthorized in 1998 under the Transportation Equity Act for the 21st Century. Under the program, the U.S. secretary of transportation recognizes certain roads as National Scenic Byways or All-American Roads based on their archaeological, cultural, historic, natural, recreational, and scenic qualities.

State

California Scenic Highway Program

Caltrans manages the California Scenic Highway Program, which was created by the State Legislature in 1963 (Caltrans 2023). The purpose of this program is to preserve and protect scenic highway corridors from change that would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in the Streets and Highways Code, Section 260 et seq. Caltrans manages the State Scenic Highway Program, provides guidance, and assists local government agencies, community organizations, and citizens with the process to officially designate a scenic highway.

A highway may be designated as scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view. The California Scenic Highway System includes a list of highways that are either eligible for designation as Scenic Highways or have been so designated. The status of a scenic highway in California changes from eligible to officially designated when the local jurisdiction adopts a scenic corridor protection program, applies to Caltrans for scenic highway approval, and receives notification from Caltrans that the highway has been designated as a scenic highway (Caltrans 2023).

Several highways and state routes are located within the region that provide access to the Project site. As stated previously, the Project site is not in close proximity to any State-designated Scenic Highways.

Local

Construction and operation of the Project would be subject to the Metropolitan Bakersfield General Plan (MBGP), which include policies, goals, and implementation measures related to aesthetic resources, along with the Kern County Zoning Ordinance and the Kern County Code of Building Regulations, which include regulations pertaining to lighting and building design.

Metropolitan Bakersfield General Plan

The Project site is located within the MBGP area, and therefore, would be subject to applicable policies and measures within the plan. The Land Use Element and Open Space Element include relevant measures related to aesthetics that apply to the Project, as outlined below:

Chapter II: Land Use Element

Policies

Policy 35: Encourage upgrading of visual character of heavy manufacturing industrial areas through the use of landscaping or screening-of visually unattractive buildings and storage areas.

Policy 36: Require that industrial use provide design features, such as screen walls, landscaping and height, setbacks and lighting restrictions between the boundaries of adjacent residential land use designation so as to reduce impacts on residence due to light, noise, sound, and vibration.

Policy 37: Street frontage along all new industrial developments shall be landscaped.

Kern County Zoning Ordinance

Chapter 19.74, Scenic Corridor Combining District

Chapter 19.74 of the Zoning Ordinance establishes a Scenic Corridor Combining District. This zoning district is intended to protect areas with unique visual and scenic resources from intrusion by excessive or inappropriate forms of signage by requiring additional review by Kern County Planning and Natural Resources Department. The Project site is not located in a designated Scenic Corridor.

Chapter 19.81, Outdoor Lighting “Dark Skies Ordinance”

In November 2011, Kern County approved and adopted a Dark Skies Ordinance that is incorporated into the Kern County Zoning Ordinance as Chapter 19.81. The purpose of this ordinance is to maintain the existing character of Kern County by requiring a minimalist approach to outdoor lighting design, recognizing that excessive illumination can create a glow that may obscure the night sky and excessive illumination, or glare that may constitute a nuisance. Requirements for outdoor lighting within specified unincorporated areas of Kern County are crafted in order to accomplish the following objectives:

- Encourage a safe, secure, and less light-oriented nighttime environment for residents, businesses, and visitors.
- Promote a reduction in unnecessary light intensity and glare, and to reduce light spillover onto adjacent properties.
- Protect the ability to view the night sky by restricting unnecessary upward projections of light.

- Promote energy conservation and a reduction in the generation of greenhouse gases by reducing wasted electricity that can result from excessive or unwanted outdoor lighting.

Kern County Development Standards

The Kern County Development Standards have specific regulations pertaining to lighting standards, including the requirement that lighting must be designed so that light is reflected away from surrounding land uses so as not to affect or interfere with vehicular traffic, pedestrians, or adjacent properties.

4.1.4 Impacts and Mitigation Measures

This section describes the impact analysis relating to aesthetics and visual resources for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (that is, avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, where applicable.

Methodology

In general, the potential character, quality, light, and glare impacts associated with the Project are evaluated on a qualitative basis. This visual impact assessment is being utilized to identify and assess any potential long-term adverse visual impacts to aesthetics and visual resources that might result from the implementation of the Project during construction and operation. This assessment is based on the approved visual assessment practices employed by the FHWA (FHWA 2015), the Bureau of Land Management (BLM), the U.S. Forest Service, and other federal regulatory agencies; a method that entails the following:

- Defining the Project and its visual setting by assessing the Project proponent's submitted project application materials, including plans and descriptions, and reviewing Google Earth Pro aerial photographs and street-level photography, Kern County GIS topographic and land use data, and U.S. Geological Survey topographic data.
- Conducting a field visit of the Project site and vicinity to document the following:
 - Project site's visual characteristics.
 - Project vicinity's visual characteristics.
 - Establish a visual characteristic baseline.
 - Location of visual (sensitive) receptors in the vicinity.

- Establishing KOPs within vicinity from which to evaluate potential visual impacts resulting from implementation of the Project.
 - KOPs that are the most representative and important viewpoints identified during the field survey to evaluate potential visual impacts that would result from the Project.
- Preparing visual simulations of post-development views of the KOPs.
- Assessing the Project's impacts to sensitive viewers by applying the visual quality rating system to each of the visual simulations.
- Proposing methods to mitigate or reduce any potentially significant visual impacts identified.

The evaluation of Project impacts is based on professional judgement, analysis of the MBGP goals and policies related to visual resources, and the significance criteria established by California Environmental Quality Act (CEQA) Guidelines, Appendix G. More detailed information on the methodology behind the selection of KOPs and visual simulations is provided below.

Selection of Key Observation Points

KOPs are selected to represent views that would be experienced from sensitive viewpoints. KOPs are single viewpoints that appropriately reflect the impact that implementation of the Project would have on one or more sensitive receptors. Sensitive receptors near the Project site fall into the following categories: motorists, employees, and residents. KOPs were identified based on review of available land use data, preliminary viewshed analysis, and a review of aerial maps.

The process of identifying KOPs focused on selecting viewpoints that could be used to accurately represent views from a broader range of viewpoints, particularly viewpoints from area sensitive receptors. Sensitive receptors near the Project site include motorists, employees of industrial uses nearby, and viewers of the Project site from residences along local roads. The familiarity with the view also influences how much attention is spent on the visual environment. Regular motorists may be highly familiar with the view and sometimes pay less attention; however, these motorists tend to be much more sensitive to changes in that view. People who are less familiar with the view may spend more time looking at the surrounding land but would not notice changes in the view. The majority of existing motorists are likely to be employees of nearby businesses and commerce centers, or residents driving to and from home or to and from the airport.

The Project site is located in a dispersed industrial and residential area. As described in Section 4.1.2, *Environmental Setting*, the Park Meadows residential apartment complex is located directly east of the Project site across Airport Drive. Among these residents, those with direct views of the Project site from their homes would tend to be the most sensitive to changes in the view. These residents tend to have much more familiarity with the existing viewshed and a heightened sensitivity to any visual changes within the landscape. Employees of Derrel's Mini Storage and Fabulous Burgers, to the east and FedEx Ship Center, Epic Jet Center, and Airman Flight Training to the south of the Project site also have heightened sensitivity to visual changes within the landscape.

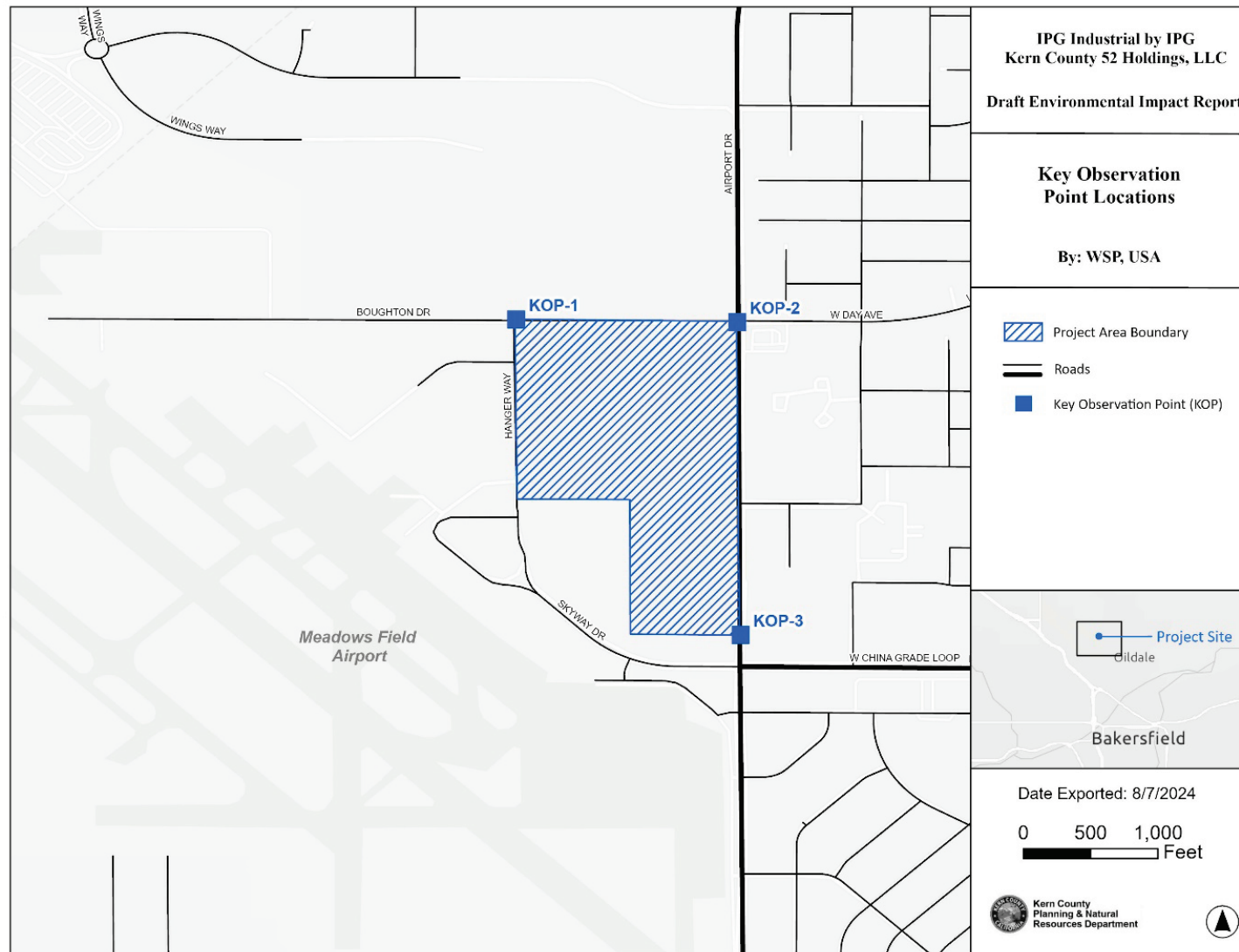
The lead agency selected three KOPs for to create post-development visual simulations. The evaluated KOPs are mapped on **Figure 4.1-2** and described below in **Table 4.1-2**. The KOPs selected for simulation were chosen because they represent views that residents, employees, and motorists would experience from their adjacent homes, place of work, and local roadways, respectively, when viewing the Project site.

Table 4.1-2: Key Observation Points

KOP	Location	Representative Sensitive Viewers
KOP-1	Intersection of Boughton Drive and Hanger Way looking southeast toward the Project site	Motorists, employees, and residents of California Aeronautical University on Boughton Drive and Hanger Way as they pass the Project site.
KOP-2	Intersection of Airport Drive and Boughton Drive looking southwest toward the Project site	Motorists, employees, and residents on Airport Drive as they pass the Project site.
KOP-3	Intersection of Airport Drive and Skyway Drive looking northwest toward the Project site	Motorists, employees, and residents on Airport Drive as they pass the Project site.

KOP = Key Observation Point

Figure 4.1-2: Key Observation Point Locations



Simulation Preparation

Visual simulations of the Project from the identified KOPs were prepared by WSP in January 2025 (**Figure 4.1-3** through **Figure 4.1-5**) to provide a representation of the pre- and post-project visual conditions as well as context for qualitative description of the aesthetic changes that would result from implementation of the Project. Photographs were taken by Kern County representatives during a site visit on March 19, 2024, and simulations were prepared by WSP using the assumptions and methodologies listed below in **Table 4.1-3**.

Table 4.1-3: Visual Simulation Methodology and Assumptions

Photography from Key Observation Points	<p>Photos were taken on a clear day with scattered clouds on March 19, 2024</p> <p>Photos were taken on an iPhone 15 Pro Max with following camera system:</p> <p>48MP Main: 24 mm, <i>f</i>/1.78 aperture, second generation sensor shift optical image stabilization, 100% Focus Pixels, support for super high resolution photos (24MP and 48MP)</p> <p>12MP Ultrawide: 13 mm, <i>f</i>/2.2 aperture and 120° field of view, 100% Focus Pixels</p> <p>12MP 2x Telephoto (enabled by quad pixel sensor): 48 mm, <i>f</i>/1.78 aperture, second generation sensor shift optical image stabilization, 100% Focus Pixels</p> <p>12MP 5x Telephoto: 120 mm, <i>f</i>/2.8 aperture, 3D sensor shift optical image stabilization and autofocus, tetraprism design</p> <p>5x optical zoom in, 2x optical zoom out; 10x optical zoom range</p> <p>Digital zoom up to 25x</p> <p>Source: Apple, 2024</p>
Visual simulation assumptions	<p>Building height assumed at approximately 56 feet from finished grade to top of roof, plus between 4 feet and 10 feet to the top of parapet.</p> <p>Building 1 is assumed at a total of approximately 655,690 square feet, including 10,000 square feet of office, and Building 2 is assumed at a total of 267,440 square feet, including 5,000 square feet of office.</p> <p>Parking would include 124 spaces for truck doc trailer parking, 547 for automobile parking, and 307 for truck trailer spaces</p> <p>Generic landscaping is assumed with 10- to 15-year mature trees</p> <p>Fencing materials assumed to be a 6-foot-high chain-link fence with slats</p>
Methods	<p>Following the data gathering phase, the process begins with a determination of proposed camera locations and station points. Upon review and approval of camera locations, Kern County conducted a field visit to photograph the locations.</p> <p>Concurrently, WSP developed a computer model of the Project to illustrate its appearance from different points of view. Natural and finished pads, including existing and surrounding contextual elements such as streets, lights, trees, terrain, and adjacent development (where applicable), were used as a reference. Upon completion of the 3D modeling phase, realistic materials, maps, and textures were then applied. The next phase was assembly, during which the modeling was inserted into photographs taken during the field study using a full-frame camera and camera match technology. 3D pads and boundary outlines were used to situate the modules to the proposed positions as shown on the CAD drawings provided. During this process, a computer model camera was aligned with the onsite photography to depict the Project setting within each view.</p>

3D = three-dimensional

CAD = computer-aided design

mm = millimeter

MP = megapixel

x = times

A comparison of existing views from the KOPs with visual simulations depicting visible Project features, aided in determining the Project-related impacts. The simulations are representative of the existing landscape setting contained within the Project site, as well as an illustration of how the Project may look from the identified KOPs at full buildout. While the warehouse buildings shown in visual simulations are not identical to those that would be developed at the Project site, modular warehouse buildings are visually similar based on proposed elevations (Chapter 3, *Project Description*), regardless of the manufacturer, and are therefore similar enough to evaluate project impacts to aesthetics. **Figure 4.1-3** through **Figure 4.1-5** show each of the three KOPs in their existing and post-construction conditions.

Rating Visual and Scenic Quality

“Visual quality” is a measure of a landscape or view’s visual appeal. While there are a number of standardized methods for rating visual quality, the “Scenic Quality Rating Criteria” method utilized by the BLM is believed to be the most comprehensive as it allows the various landscape elements that comprise visual quality to be easily quantified.

Scenic quality refers to the visual appeal of a landscape relative to desired scenic values and the abundance or scarcity of similar qualities in the region. Scenic quality can be measured quantitatively by evaluating the presence or absence of scenic features and the intrusion of features that detract from the scenic features.

According to this method, visual and scenic quality can be rated according to the presence and characteristics of seven key components of the landscape. As described below, these components include landform, vegetation, water, color, adjacent scenery, scarcity and cultural modifications.

The **landform** component of the visual quality rating criteria considers the fact that topography becomes more interesting visually as it gets steeper or more massive, or more severely or universally sculptured. Outstanding landforms may be monumental, (as found in Yosemite Valley), or they may be exceedingly artistic and subtle (such as certain badlands, pinnacles, arches, and other extraordinary formations).

The **vegetation** component of the rating criteria gives primary consideration to the variety of patterns, forms, and textures created by plant life. Short-lived displays are given consideration when they are known to be recurring or spectacular. Consideration is also given to smaller scale vegetation features that add striking and intriguing detail elements to the landscape (for example, gnarled or wind beaten trees, Joshua trees).

The **water** component of the rating criteria recognizes that visual quality is largely tied to the presence of water in scenery, as it is that ingredient which adds movement or serenity to a scene. The degree to which water dominates the scene is the primary consideration in selecting the rating score for the water component.

The **color** component of the visual quality rating criteria considers the overall color(s) of the basic components of the landscape (for example, soil, rock, vegetation). Key factors that are used when rating the color of scenery are variety, contrast, and harmony.

The **adjacent scenery** component of the rating criteria considers the degree to which scenery outside the view being rated enhances the overall impression of the scenery under evaluation. The distance of influence for adjacent scenery normally ranges from 0 to 5 miles, depending upon the characteristics of the topography, the vegetation cover, and other such factors. This factor is generally applied to views that would normally rate very low in score, but the influence of the adjacent high visual quality would enhance the visual quality and raise the score.

The **scarcity** component of the visual quality rating criteria provides an opportunity to give added importance to one or all of the scenic features that appear to be relatively unique or rare within a region. There may also be cases where a separate evaluation of each of the key factors does not give a true picture of the overall scenic quality of an area. Often, it is a number of not so spectacular elements in the proper combination that produces the most pleasing and memorable scenery – the scarcity factor can be used to recognize this type of area and give it the added emphasis it should have.

The **cultural modifications** component of the visual quality rating criteria considers any man-made modifications to the landform, water, vegetation, and/or the addition of man-made structures. Depending on their character, these cultural modifications may detract from the scenery in the form of a negative intrusion, or they may complement and improve the scenic quality of a view.

Based on the above criteria, views are rated numerically and a total score of visual quality can be tabulated. Based on the BLM's rating system, there are a total of 32 points possible. Views that score a total of 19 points or more are typically considered very high in visual quality. Views that score a total of 15 to 19 points are typically considered to have a high level of visual quality. Views that score a total of 12 to 15 points are typically considered to have an above average level of visual quality. Finally, views that score a total of 11 points or less are typically considered to have average visual quality. **Table 4.1-4** provides the point values associated with the various criteria.

An important premise of this evaluation method is that views with the most variety and most harmonious composition have the greatest scenic value. Another important concept is that human-made features within a landscape do not necessarily detract from the scenic value. In fact, certain human-made features that complement the natural landscape may actually enhance the visual quality. In making this determination, it is therefore important to assess Project effects relative to the “visual character” of the Project setting. Visual character is qualitatively defined by four primary components: form, line, color, and texture.

Projects that create a high level of contrast to the existing visual character of a project setting are more likely to generate adverse visual impacts due to visual incompatibility with the existing setting. Conversely, projects that create a low level of contrast to the existing visual character are less likely to generate adverse visual impacts due to inherent visual compatibility. On this basis, modifications within the existing project site that would result from project implementation are quantified and evaluated for impact assessment purposes.

By comparing the difference in visual quality ratings from the baseline (“before” condition) to post-project (“after” condition) visual conditions, the severity of project-related visual impacts can be

quantified. In some cases, visual changes caused by projects may actually have a beneficial visual effect and may enhance scenic quality. The following designations are used to rank the significance of project impacts according to the pre- and post-project differences in numerical visual quality scores:

Potentially Significant Impact: Any impact that could potentially lower the visual quality of an identified sensitive viewpoint by 2 points or more, and for which no feasible or effective mitigation can be identified.

Less than significant Impact with Mitigation Incorporated: Any impact that could potentially lower the visual quality of an identified sensitive viewpoint by 2 points or more but can be reduced to less than 2 points with mitigation incorporated. Therefore, specific mitigation measures are provided to reduce the impact to a less than significant level.

Less than significant Impact: Any impact that could potentially lower the visual quality of an identified sensitive viewpoint by 1 point or less. In visual impact analysis, a less than significant impact usually occurs when a project's visual modifications can be seen but do not dominate, contrast with, or strongly degrade a sensitive viewpoint.

No Impact: The project would not have an impact from an identified sensitive viewpoint. In visual impact analysis, there is no impact if the Project's potential visual modifications cannot be seen from an identified sensitive viewpoint.

Table 4.1-4: Visual Quality Rating System

Key Factors	Rating Criteria and Score (Points)		
Landform	5 - High vertical relief as expressed in prominent cliffs, spires, or massive rock outcrops, or severe surface variation or highly eroded formations including major badlands or dune systems; or detail features dominant and exceptionally striking and intriguing such as glaciers.	3 - Steep canyons, mesas, buttes, cinder cones, and drumlins; or interesting erosional patterns or variety in size and shape of landforms; or detail features which are interesting though not dominant or exceptional.	1 - Low rolling hills, foothills, or flat valley bottoms; or few or no interesting landscape features.
Vegetation	5 - A variety of vegetative types as expressed in interesting forms, textures, and patterns.	3 - Some variety of vegetation, but only one or two major types.	1 - Little or no variety or contrast in vegetation
Water	5 - Clear and clean appearing, still, or cascading white water, any of which are a dominant factor in the landscape.	3 - Flowing, or still, but not dominant in the landscape.	0 - Absent, or present but not noticeable.
Color	5 - Rich color combinations, variety or vivid color; or pleasing contrasts in the soil, rock, vegetation, water or snow fields.	3 - Some intensity or variety in colors and contrast of the soil, rock, and vegetation, but not a dominant scenic element.	1 - Subtle color variations, contrast, or interest; generally mute tones.
Influence of Adjacent Scenery	5 - Adjacent scenery greatly enhances visual quality.	3 - Adjacent scenery moderately enhances visual quality.	0 - Adjacent scenery has little or no influence on overall visual quality.
Scarcity	5 - One of a kind; or unusually memorable, or very rare within region. Consistent chance for exceptional wildlife or wildflower viewing, etc.	3 - Distinctive, though somewhat similar to others within the region.	1 - Interesting within its setting but fairly common within the region
Cultural Modifications	2 - Modifications add favorably to visual variety while promoting visual harmony.	0 - Modifications add little or no visual variety to the area and introducing no discordant elements.	-4 - Modifications add variety but are very discordant and promote strong disharmony.

Source: BLM Manual H-8410-1 – Visual Resources Inventory (BLM 1986).

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in CEQA Guidelines Appendix G, to determine whether a project could potentially have a significant adverse effect on aesthetic resources.

A project would have a significant impact on aesthetics if it does the following:

- Has a substantial adverse effect on a scenic vista
- Substantially damages scenic resources, including trees, rock outcroppings, and historic buildings within a State designated scenic highway
- In an urbanized area, conflicts with applicable zoning and other regulations governing scenic quality of the site and its surroundings
- Creates a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area

Project Impacts

The amount of potential visual change that would be introduced into the existing landscape and the degree to which viewers are likely to be impacted and react to the change are described below for each applicable threshold of significance. Impacts associated with implementation of the Project consists of the construction of the two buildings associated with the Project. As previously discussed, **Figure 4.1-3** through **Figure 4.1-5** illustrate the renderings of the two buildings that would be constructed as part of the Project from each KOP.

Impact 4.1-1: The Project would have a substantial adverse effect on a scenic vista.

Scenic vistas are areas identified or known for high scenic quality. Scenic vistas may be designated by a federal, State, or local agency, and can also include an area that is designated, signed, and accessible to the public for the express purposes of viewing and sightseeing. There are no officially designated scenic vistas on or visible from the Project site. As such, the proposed Project would not result in a substantial adverse effect on a scenic vista. No impacts would occur.

Mitigation Measures

No mitigation measures would be required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.1-2: The Project would substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.

There are currently no designated State Scenic Highways within the Project area. The nearest officially designated State Scenic Highway to the Project is the southern section of Rt. 33, which is located 60 miles south of the Project site. The proposed Project would have no effect for travelers along this Scenic Highway.

Similarly, the closest highways that are eligible for designation are located in the desert portion of eastern Kern County (Caltrans 2023). Route 1, which begins north of Mojave and continues to the Inyo County Line, consists of State Route (SR) 14 and State Highway 395. Route 2 consists of SR 58 between Mojave and Boron. Route 3 consists of 5 miles of SR 41 in northwest Kern County. The project site would not be visible from any of these routes.

Given this distance and intervening topography, the proposed Project would have no effect for travelers along the Eligible State Scenic Highway. Additionally, construction of the proposed Project would not be visible from any officially designated or Eligible State Scenic Highway.

There would be no change to the viewshed from any officially designated or Eligible State Scenic Highway, and no impact would occur.

Mitigation Measures

No mitigation measures would be required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.1-3: The Project would conflict with applicable zoning and other regulations governing scenic quality.

As described in Chapter 3, *Project Description*, and above under Section 4.1.2, *Environmental Setting*, existing development in the Project vicinity are varied and consist of industrial, commercial, transportation, and residential uses. To the north, the Project boundary runs parallel to Boughton Drive with vacant undeveloped land across Boughton Drive which is also zoned for light industrial use. An aeronautical university is also located northwest of the site at the terminus of Boughton Drive. To the east, the Project boundary runs parallel to Airport Drive, with a mix of uses across Airport Drive including Derrel's Mini Storage, Park Meadows Apartments, and Fabulous Burgers. The residential uses comprise single- and multifamily residences are also located east of the Project site, with the nearest residences being the Park Meadows apartment complex sited approximately 100 feet directly east. The Project has been designed so that no truck docks face the residences located east of the site as shown in Figure 3-6a, *Overall Site Plan*. Outdoor storage of any possible goods and materials, such as tires, is not proposed as part of this project. All products would be stored entirely within the proposed warehouses.

To the south is Skyway Drive, where a FedEx Ship Center, Epic Jet Center, and Airman Flight Training are opposite of Skyway Drive. To the west is Hanger Way, and approximately 0.6 mile is Meadows Field Airport and transportation uses.

As the Project is located within an urbanized area, the analysis below will focus on whether development of the Project would conflict with applicable zoning and other regulations governing scenic quality of the site and its surroundings.

Construction

Construction activities associated with the Project would create temporary changes in views of the Project site. During construction, surrounding areas would experience a change in visual quality due to the presence of construction equipment, land clearing and preparation of the site, and presence of vehicles and workers; however, following completion of construction, all exposed areas used for laydown and staging would be returned to pre-construction conditions and revegetated to native habitat conditions.

Short-term impacts could result from land clearing and grading for pads and work areas, temporary construction areas, and vehicle and equipment operations for building construction. This would cause short-term aesthetic impacts resulting in a reduction in unity, intactness, or vividness created by vegetation removal, and materials, equipment, vehicles, structures, fences, and other elements that would be present during construction.

On-site parking could be noticeable during construction if certain sites require a larger number of workers and, consequently, their vehicles. Nighttime lighting for construction or safety and security in construction areas may also result in short-term aesthetic impacts; these impacts associated with creating new sources of substantial light or glare are addressed separately under Impact 4.1-4.

The severity of construction-related aesthetic impacts would depend not only on the reduction in unity, intactness, and vividness produced by the construction activities, but also on the visibility and proximity of these activities to viewers and the sensitivity of viewers to changes in the landscape's character and quality. Additionally, activities may be temporary and somewhat brief (several weeks to several months). The construction activities would be visible and noticeable from public areas surrounding the Project for a relatively short distance (approximately 0.5 mile) due to the relative flatness of the topography, except where views are obstructed by vegetation, and structures. In addition, the visual effects associated with the presence of construction vehicles, equipment, and workers in the Project area landscape would be limited in duration, as discussed above, and would be spatially limited at any given time to the active area of construction. Therefore, impacts to existing visual character or quality of the Project site and surrounding area during construction of the Project would be less than significant.

Operation

The Project is a warehousing facility that is compatible with the underlying MBGP land use designation map code of LI (Light Industrial), and consistent with the zoning of M-1 PD H (Light Industrial – Precise Development Combining – Airport Height Approach Combining) District. The surrounding uses vary and consist of industrial, commercial, transportation, and residential uses.

In order to determine whether the Project would substantially degrade the existing visual quality of the Project site, the following visual analysis compares the existing setting with the visual simulations prepared by WSP showing post-construction visual conditions. As described above, three KOPs were selected for visual simulations, representing views that would be experienced from the surrounding sensitive receptors.

Visual simulations, representing the post-construction conditions, are compared side-by-side to the pre-construction conditions and are provided in Figures 4.1-3 through 4.1-5, below. The KOPs are described in **Table 4.1-2** and the Methodology section explains the process for determining impacts associated with operation of the Project, based on the viewer location at each KOP. The rating system and impacts methodology are discussed in the Rating Visual Quality Section above.

Once constructed, the Project would include two single-story logistics warehouses for a logistics facility. The warehouse buildings would be primarily constructed from architecturally enhanced concrete panels and would not be higher than 56 feet above the finished floor elevation. The two buildings and Project components would introduce additional industrial-looking elements into the landscape that would be visible to sensitive viewers. As noted previously, outdoor storage of goods and materials to be stored and distributed during implementation of the Project is not included in the proposal. Therefore, products such as tires, lumber, or other packaged goods are not expected to be visible to the nearest sensitive receptors as they will be stored entirely indoors, thereby alleviating the need for exterior screening fixtures that are commonly used for other industrial storage developments such as a contractor's storage yard or vehicle wrecking yard.

As mentioned in Chapter 3, *Project Description*, the Project may be occupied by a tenant that specializes in the wholesale distribution of tire and tire accessories that would be shipped off-site for the retail market. This specific type of occupancy would typically require unique fire prevention fixtures and limitations. However, these specifications would include interior safety designs that would occur entirely indoors and would not be visible to the nearest sensitive receptor. Additionally, storage of tires on site would be incidental to the proposed warehouse and distribution use, which is permitted on a by-right basis in the M-1 PD H District.

KOP-1: **Figure 4.1-3** shows the view from KOP-1 at the intersection of Boughton Drive and Hanger Way looking southeast toward the Project site. This KOP-1 accurately reflects views of the Project site that employees and residents would view while on the roadway. The pre-development view from KOP-1 captures a landscape that is flat and covered with low-lying grasslands vegetation in the foreground. Note that the color of the grasslands change seasonally, and contains varying degrees of green, brown, and golden hues. In the distant middle ground, trees along private

residential strips, and the Park Meadow Apartment complex can be seen. The background from KOP-1 consists mostly of sparse, low-lying mountains with distant hilltops visible. The post-development view from KOP-1 (**Figure 4.1-3**) would include changes and modifications that would primarily be located in the middle ground and the background of the landscape becomes mostly obscured. The facility buildings would be visible from KOP-1 and contrast with the flat grasslands in the existing conditions immediately north of the Project area. While the Project would change the landscape, it would not greatly contrast with the built environment, considering that the surrounding area consists of similar looking single story industrial buildings. As discussed in **Table 4.1-5** the pre-development score is 7, and the post-development score is 6, therefore, visual impacts from KOP 1 would be less than significant.

KOP-2 **Figure 4.1-4** shows the view from KOP-2 at the intersection of Airport Drive and Boughton Drive looking southwest toward the Project site. KOP-2 reflects views of the Project site that would be experienced by residents, employees, and motorists along the roadways adjacent to the Project. The pre-construction views from KOP-2 show that the landscape is flat and covered with low-lying grasslands vegetation in the foreground. In the distant middle ground, shrubs can be seen hedging the roadways that curve around the Project site, and airplane storage hangers and other industrial buildings can be viewed across the Project site. The background of KOP-2 consists mostly of residential development and low-lying mountains with distant hilltops visible. The post-development view from KOP-2 (**Figure 4.1-3**) would include changes and modifications that would be located primarily in the middle ground of the landscape. The facility buildings would be visible from KOP-2 and would create form on a previously flat terrain. The buildings and landscaping obscure most of the views of residential areas and mountains in the background. As discussed in **Table 4.1-6** the pre-development score is 7, and the post-development score is 5, therefore, visual impacts from KOP-2 would be potentially significant without mitigation.

KOP-3 **Figure 4.1-5** shows the view from KOP-3 at the intersection of Airport Drive and Skyway Drive looking northwest toward the Project site. KOP-3 reflects views of the Project site that would be experienced by employees, residents, and motorists along the roadways adjacent to the Project site. The pre-construction views from KOP-3 show that the landscape is flat and covered with low-lying grasslands vegetation in the foreground. In the distant middle ground, palm trees located in industrial parking lots can be seen, along with other industrial buildings and airplane storage hangers. Mature trees on residential property that line the street can be seen as well. The post-development view from KOP-3 (**Figure 4.1-4**) would include changes and modifications that would be located in the foreground and middle ground of the landscape. The facility buildings would be visible from KOP-3 and contrast with the surrounding environment and flat grasslands in the existing conditions of the Project area. While the Project would change the landscape, it would not greatly contrast with the built environment surrounding the Project area, which currently consists of light industrial, commercial, residential, and transportation uses. As discussed in **Table 4.1-7** the pre-development score is 7, and the post-development score is 8, therefore, visual impacts from KOP-3 would be less than significant.

Figure 4.1-3: KOP-1 Existing and Proposed Conditions at Boughton Drive and Hanger Way

Existing: Boughton Drive and Hanger Way



Proposed: Boughton Drive and Hanger Way



Table 4.1-5: Visual Quality Rating Analysis – KOP-1

Sensitive Receptor: Motorists driving along Boughton Drive and Hanger Pre-development and post-development conditions are depicted in Figure 4.1-3				
Rated Feature	Pre-development Condition	Post-development Condition	Difference in Scores	Impact Significance
Landform	1	0	-1	Less than significant.
Explanation	Flat terrain covered with low-lying grasslands vegetation dominates the landscape with distant views of southerly sloping mountains.	Though the proposed site is flat and would remain unchanged, the view from KOP-1, post development, would change substantially, as the facility would mostly obscure distant views of the mountains.		
Detail	The foreground from this KOP is dominated by flat landforms. In the distance, mountains can be seen that diminish in size toward the south. Post-development would obscure most of these views, however, some views of the mountains are still visible from Boughton Drive.			
Vegetation	1	2	+1	Less than significant.
Explanation	The foreground consists primarily of non-native grasslands. In the distant middle ground, trees are clustered near residential development.	Existing non-native grasslands would be removed from the Project site in the middle ground for development. Distant vegetation would be obscured. However, a vegetation barrier is proposed along the street frontage and includes trees, shrubs, and ground cover. Note that the KOP-1 depicts mature vegetation.		
Detail	The post- development views of vegetation from KOP-1 would be more varied, as compared to the pre-development views due to the proposed landscaping surrounding the building. Vegetation variability surrounding the Project would be improved from pre-construction conditions.			
Water	1	1	0	Less than significant.
Explanation	No water is present on the site or in the vicinity.	The Project would introduce an on-site storm drainage system consisting of inlets, underground piping, and surface and underground basins.		

Sensitive Receptor: Motorists driving along Boughton Drive and Hanger Pre-development and post-development conditions are depicted in Figure 4.1-3				
Detail	There are no natural water features on the Project site or within the surrounding area. The storm drainage system has not yet been designed but anticipates addition of a surface retention basin to accommodate a 100-year storm event.			
Color	1	1	0	Less than significant.
Explanation	The existing landscape features shades of browns, yellows, and greens across the foreground and middle ground, and dark green and grey are associated with soil and distant mountains in the background.	Buildings would introduce metal and tempered glass, giving cool colors, with occasional muted concrete paneling. A vegetation barrier would resemble earthy tones.		
Detail	The pre-construction coloring consists of yellow and green tones in the foreground and middle ground. The background offers blue tones and cool tones. The proposed facility would be flat and muted, with metal and concrete additions, and flat paints. Background colors would not be substantially altered and would remain a cool tone.			
Adjacent Scenery	1	0	-1	Less than significant.
Explanation	Scenery in the foreground consists mainly of grassland vegetation, with an electric transformer visible. The distant middle ground features deciduous and evergreen trees and an apartment complex, while distant mountains along the skyline are visible in the background.	Scenery in the foreground and middle ground would be changed, while the background would mostly be obscured, eliminating views of sparse mountains and hilltops.		
Detail	The Project would display prominently in the middle ground, obstructing most of the background views from KOP-1. The foreground would be changed as well to accommodate landscaping associated with the Project. The adjacent scenery has little to no influence on the overall visual quality.			
Scarcity	1	1	0	Less than significant.
Explanation	The available views are broad and there are no unique aspects from KOP-1. Similar views exist throughout the region.	Views would be slightly modified by the Project's industrial development in the middle ground.		
Detail	Existing views offered from KOP-1 are typical of the area and are not particularly unusual or unique. Alteration of the landscape to accommodate the Project would not result in visually significant impacts to view scarcity.			

Sensitive Receptor: Motorists driving along Boughton Drive and Hanger Pre-development and post-development conditions are depicted in Figure 4.1-3				
Cultural Modifications	1	1	0	Less than significant.
<i>Explanation</i>	Cultural modifications include roadway, residential apartment buildings, planted vegetation, commercial and industrial development, and a local airport.	The proposed development would mostly obscure the apartment buildings and clustered planted trees in the distant middle ground Project related development includes construction of two industrial warehouse buildings.		
<i>Detail</i>	Existing cultural modifications are particularly prominent in the distant middle ground. While the foreground would undergo modifications with the addition of the industrial warehouse buildings, the proposed development would be consistent with the surrounding cultural modifications, including other industrial uses and introduced vegetation.			
Totals	7	6	-1	Less than significant.

KOP = Key Observation Point

Figure 4.1-4: KOP-2 Existing and Proposed Conditions at Airport Drive and Boughton Drive

Existing: Airport Drive and Boughton Drive



Proposed: Airport Drive and Boughton Drive



Table 4.1-6: Visual Quality Rating Analysis – KOP-2

Sensitive Receptor: Residents and motorists on Airport Drive as they pass the Project site. Pre-development and post-development conditions are depicted in Figure 4.1-4				
Rated Feature	Pre-development Condition	Post-development Condition	Difference in Scores	Impact Significance
Landform	1	0	-1	Less than significant.
Explanation	Flat terrain covered with low-lying grasslands and scrub-shrub vegetation.	The buildings and vegetation would provide form to a previously flat terrain. From KOP-2, the distant landforms of mountains would be obscured.		
Detail	The landform viewed from KOP-2 would change due to erection of new buildings and landscape screening that would obscure most of the distant mountains. The landform would remain flat at the Project site.			
Vegetation	1	1	0	Less than significant.
Explanation	Low-lying vegetation, mostly non-native grasslands dominate the views from KOP-2. There are visible shrubs that hedge the Project site perimeter looking southwest and treetops in distant residential areas.	Existing grasslands vegetation would be removed from the Project site and distant shrubs and treetops would be obscured by the buildings and new landscaping. Vegetation in the parking lot and a vegetated barrier along the frontage would be added and would comprise the majority of the view visible from KOP-2.		
Detail	The post- development views of vegetation from KOP-2 would be more varied, compared to the pre-development dominant views of single vegetation of low-lying grassland. Distant shrubs and residential treetops would be obscured; however, new landscaping would be incorporated throughout the parking lot.			
Water	1	1	0	Less than significant.
Explanation	No water is present on the site or in the vicinity.	The Project would introduce an on-site storm drainage system consisting of inlets, underground piping,		

Sensitive Receptor: Residents and motorists on Airport Drive as they pass the Project site. Pre-development and post-development conditions are depicted in Figure 4.1-4				
		and surface and underground basins.		Less than significant.
Detail	There are no natural water features on the Project site or within the surrounding area from KOP-2. The storm drainage system has not yet been designed but anticipates addition of a surface retention basin to accommodate a 100-year storm event.			
Color	1	1	0	
Explanation	The existing landscape features shades of browns, yellows, and greens across the foreground. In the distant middle ground, shades of blues, greys, and dark greens are associated with trees and mountains in the background.	Buildings would introduce metal and tempered glass, giving cool colors, with occasional muted concrete paneling. Newly paved parking lots would offer striking darker colors balanced with overall earth tones of new vegetation.		Less than significant.
Detail	The pre-construction colors consist of vibrant yellows and greens in the foreground and cool blues and greens in the background. Note that vegetation in the foreground will change seasonally to colors with gold and brown. The proposed buildings would introduce cooler tones to the foreground, with the addition of tempered glass, metals, and occasional concrete paneling. Background colors of cool blues would not be substantially altered, would be less visible than pre-construction views due to the obstruction of vegetation in the foreground.			
Adjacent Scenery	1	0	-1	
Explanation	Scenery in the foreground consists mainly of grassland and scrub-shrub vegetation. The middle ground features shrubs hedging roadways, industrial buildings, and airport hangars, while distant treetops skirt mountains along the skyline in the background.	Scenery in the foreground and distant middle ground would be changed, as much of the industrial development would be obscured. The background of mountains and treetops would mostly become obscured by Project development.		Less than significant.
Detail	The Project would dominate foreground views and buildings would obstruct much of the industrial and residential development in the distant middle ground and background. Most of the background of treelined residential communities and vast mountains would be obscured by the Project.			

Sensitive Receptor: Residents and motorists on Airport Drive as they pass the Project site. Pre-development and post-development conditions are depicted in Figure 4.1-4				
Scarcity	1	1	0	Less than significant.
Explanation	The available views are broad and there are no unique aspects from KOP-2. Similar views exist throughout the region.	Views would be slightly modified by the Project's industrial development and dense vegetation in the middle ground.		
Detail	Existing views offered from KOP-2 are typical of the area and are not particularly unusual or unique. Alteration of the landscape to accommodate the Project would not result in visually significant impacts to view scarcity.			
Cultural Modifications	1	1	0	Less than significant.
Explanation	Cultural modifications include roadway (not pictured), residential apartment buildings, commercial and industrial development, and a local airport.	Project related development includes construction of two industrial warehouse buildings and dense vegetation screening.		
Detail	Existing cultural modifications are particularly prominent in the middle ground. While the foreground would experience modifications with the addition of the industrial warehouse buildings and vegetation, the proposed development would be consistent with the surrounding cultural modifications, and therefore, would be less than significant.			
Totals	7	5	-2	Potentially significant without mitigation.

KOP = Key Observation Point

Figure 4.1-5: KOP-3 Existing and Proposed Conditions at Airport Drive and Skyway Drive

Existing: Airport Drive and Skyway Drive



Proposed: Airport Drive and Skyway Drive



Table 4.1-7: Visual Quality Rating Analysis – KOP-3

Sensitive Receptor: Residents and motorists on Airport Drive as they pass the Project site. Pre-development and post-development conditions are depicted in Figure 4.1-5				
Rated Feature	Pre-development Condition	Post-development Condition	Difference in Scores	Impact Significance
Landform	1	1	0	Less than significant.
Explanation	Flat terrain dominates the middle ground with low-lying grasslands and vegetation. Exposed soil lines the foreground of the view.	Development would not affect the broad, flat terrain in the foreground and middle ground.		
Detail	The pre- and post-development view is dominated by flat terrain in the foreground and middle ground. Unlike the other KOPs, there are no distant mountains in view. The landform would remain unchanged with development of the Project.			
Vegetation	1	2	1	Less than significant.
Explanation	Low lying non-native grasslands dominate the foreground, middle ground, and background. There are distant planted palm trees associated with industrial development.	Existing vegetation in the foreground and middle ground would be removed from the Project site in order to construct the Project. New vegetation is proposed, including a landscaping buffer with trees and shrubs, which would be used as screening. Additionally, fencing would be added to surround retention basin seen in foreground.		
Detail	The post- development views of vegetation from KOP-3 would be more varied, as compared to the pre-development views due to the proposed landscaping surrounding the buildings and incorporated within parking areas. Vegetation variability surrounding the Project site would be improved from pre-construction conditions.			
Water	1	1	0	Less than significant.
Explanation	No water is present on the site or in the vicinity.	The Project would introduce an on-site storm drainage system consisting of inlets, underground piping, and surface		

Sensitive Receptor: Residents and motorists on Airport Drive as they pass the Project site. Pre-development and post-development conditions are depicted in Figure 4.1-5				
		and underground basins.		
Detail	There are no natural water features on the Project site or within the surrounding area. The storm drainage system has not yet been designed but anticipates addition of a surface retention basin to accommodate a 100-year storm event. Final retention basin design would be enclosed and screened by perimeter fencing with earth-tone slats.			
Color	1	1	0	Less than significant.
Explanation	The existing landscape features shades of browns, yellows, and greens across the foreground and middle ground. Cool blues and whites span across the background which are associated with other industrial development.	Buildings would introduce metal and tempered glass, giving cool colors, with occasional muted concrete paneling. Newly paved parking loos would offer striking darker colors of asphalt and earthy tones associated with new vegetation barrier.		
Detail	The pre-construction coloring consists of bright yellows and greens in the foreground and cool blues and whites in the back ground. Note that foreground yellows and greens are seasonal, and would diminish in brightness through the season, turning golden and browns. Post-development views would introduce cool colors in the foreground from metal and tempered glass, giving with occasional muted concrete paneling. Newly paved parking lots would offer striking darker colors contrasted with earthy tones associated with new vegetation barrier. The views of colors would remain somewhat unchanged, where cooler colors would be introduced to the foreground to complement the cool colors from industrial development.			

Sensitive Receptor: Residents and motorists on Airport Drive as they pass the Project site. Pre-development and post-development conditions are depicted in Figure 4.1-5				
Adjacent Scenery	1	1	0	Less than significant.
Explanation	Scenery in the foreground consists mainly of grassland vegetation, with temporary signs and utilities visible adjacent to the roadway. The middle ground features a palm trees associated with industrial buildings, and associated structures.	Scenery in the foreground and middle ground would be changed to feature buildings, parking lots, and vegetation. The background would remain consistent, although most of the view would be blocked by the Project.		
Detail	The Project would display prominently in the middle ground, obstructing the background views from KOP-3. The foreground would be changed as well to accommodate landscaping and parking associated with the Project. The adjacent scenery has little to no influence on the overall visual quality.			
Scarcity	1	1	0	Less than significant.
Explanation	The available views are broad and there are no unique aspects from KOP-3. Similar views exist throughout the region.	Views would be modified by the Project's industrial development in the middle ground.		
Detail	Existing views offered from KOP-3 are typical of the area and are not particularly unusual or unique. Alteration of the landscape to accommodate the Project would not result in visually significant impacts to view scarcity.			
Cultural Modifications	1	1	0	Less than significant.
Explanation	Cultural modifications include roadway, residential apartment buildings, commercial, residential and industrial development, and a local airport.	Project related development includes construction of two industrial warehouse buildings and associated structures.		

Sensitive Receptor: Residents and motorists on Airport Drive as they pass the Project site. Pre-development and post-development conditions are depicted in Figure 4.1-5				
Detail	Existing cultural modifications are particularly prominent in the middle ground. While the foreground would experience modifications with the addition of the industrial warehouse buildings, the proposed development would be consistent with the surrounding cultural modifications, and therefore, would be less than significant.			
Totals	7	8	1	Less than significant.

KOP = Key Observation Point

Factors Reducing Visual Impacts

The following attributes of the Project and elements of existing conditions would reduce visual impacts of the Project:

- The Project site is generally flat, reducing the need for extensive grading and visible alteration of landforms.
- The lack of scenic designation of roads in the immediate Project area suggests that viewer sensitivity and expectation for scenic landscapes is reduced compared to places with higher visual quality.
- The facility buildings built as part of the Project would blend in with the colors found in the surrounding landscape.
- A landscape plan including any structural elements and planting materials would be developed for the Project area, in compliance with Kern County Zoning Ordinance, Chapter 19.86 – Landscaping.

Summary

The Project would introduce activities and buildings associated with industrial uses on the visual quality viewed by employees, motorists, and residents. While the MBGP designates surrounding uses for industrial, commercial, and residential uses, the combination of the zoning districts applicable to the Project (M-1 PD H), ensures the zone would be compatible with surrounding uses through development standards. The MBGP also contains policy (Land Use Policy 35) that includes the encouragement of upgrading the visual character through the implementation of landscaping and screening for industrial areas, in which the KOPs captured.

Based on the quantitative and qualitative review of visual quality completed for KOP-1, KOP-2, and KOP-3, as shown in Tables 4.1-5 through 4.1-7, the existing Project site would be considered to have an “average” visual quality using the BLM methodology described above. The impacts associated with the Project’s visual modifications would dominate current views, but would not contrast with, or strongly degrade the visual character, in relation to the surrounding zoning, which led to a conclusion that the Project may have a significant impact unless mitigation measures are assigned.

While the Project would dominate current views, the implementation of mitigation measures **Mitigation Measures MM 4.1-1** through **MM 4.1-3** would further reduce visual impacts associated with the Project by ensuring consistency with the colors of the surrounding landscape, use of matte and nonglossy finishes, reducing visibility of Project features, and planting of native vegetation screening as part of an approved landscape planting plan (see Figure 3-6h and Figure 3-6i for draft Landscape Plans in Chapter 3, *Project Description*). The simulations provided in Figure 4.1-3 through Figure 4.1-5, clearly show visual changes resulting from the Project that would be considered a change in the visual environment from existing conditions from each KOP. With MBGP conformance and the implementation of **Mitigation Measures MM 4.1** through **MM 4.1-3**, the visual changes would conform with the surrounding industrial, commercial, residential, and transportation uses, and impacts to existing visual character and scenic quality from public views near the Project site would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measure (MM) 4.1-1** through **MM 4.1-3** would be required.

MM 4.1-1: Prior to the issuance of building permits for the proposed project, the Project proponent/operator shall submit a proposed color scheme and treatment plan, for review and approval by the Kern County Planning and Natural Resources Department, that will ensure all project facilities blend in with the colors found in the surrounding landscape. All color treatments shall result in matte or nonglossy finishes.

MM 4.1-2: Prior to the issuance of building permits, site plans submitted for warehouse buildings located within 1,000 feet of the Boughton Drive and Airport Drive corridors shall include the following aesthetic features:

1. Rooftop screening features, such as a parapet or screening material, to create a visual screen for rooftop mechanical equipment.
2. Reflective metal shall not be used as exterior architectural elements on buildings immediately adjacent to Boughton Drive and Airport Drive.
3. Entry gates to the loading truck court must be positioned to allow a minimum of 50 feet of available stacking depth inside the property line. The stacking depth would increase by 70 feet for every 20 loading bays and beyond 50 loading bays, to the extent feasible.
4. Anti-idling signs must be installed at truck loading sites, the entrance to the development, and at all heavy-duty truck exit driveways directing drivers to the proper truck route.

MM 4.1-3: Prior to the issuance of building permits for any facilities on the Project site, the proponent/operator applicant shall submit to the Kern County Planning and Natural Resources Department for approval a landscape plan that complies with the Kern County Zoning Ordinance requirements in Chapter 19.86 - Landscaping.

The plan shall include:

- a. Preparation by a licensed Landscape Architect;
- b. California native, drought-tolerant plants;
- c. An irrigation plan as required under the Kern County Zoning Ordinance 19.86.070;
- d. A vegetation barrier shall be installed along the Boughton Drive and Airport Drive frontages of the Project site. The vegetation barrier shall consist of multiple rows of trees and shrubs, a 10-foot-high berm, a decorative wall, or a combination thereof. Final design shall be submitted for review and approval by the Director of the Planning and Natural Resources Department. The vegetation barrier shall:
 1. Be a minimum of 15 feet high (at full maturity) or a minimum of 3 feet above the decorative wall. The wall shall be between 6 and 8 feet high.
 2. Be a minimum 30-foot-wide perimeter buffer along any visible boundary from the Boughton Drive and Airport Drive;
 3. Achieve porosity between .5 to .9 at full maturity and shall maintain porosity during all seasons.
 4. Consist of multiple types of species to prevent plant mono-cultures. Use of coniferous trees, and/or trees comprised of waxy and/or hairy leaf surfaces with leaf and branch structure that provide increased surface areas is encouraged. Species composition shall include, but not be limited to, the following:
 - a. Consist of evergreen, drought tolerant species of low biogenic emissions (e.g. low pollen, etc.), a minimum of 36-inch box size at time of installation and spaced no greater than 40 feet apart.
 - b. One (1) tree having a minimum planting height of six (6) feet for every 40 lineal feet of buffer.
 - c. Palm trees, deciduous trees, monocarpic and annual plants shall not be allowed to satisfy this requirement.
 - d. Evergreen shrubs which reach a minimum height of four (4) to six (6) feet.
 - e. Live ground cover consisting of low-height plants, or shrubs, or grass shall be planted in the portion of the landscaped area not occupied by trees or evergreen shrubs.

- f. Bare gravel, rock, bark or other similar materials may be used, but are not a substitute for ground cover plantings, and shall be limited to no more than 25 percent of the required landscape area.
 - g. Consist of species that are native, non-invasive and non-poisonous.
- 5. Be maintained and consistent throughout all seasons and climatic conditions for the life of the Project. Vegetation maintenance for the vegetation barrier shall include tree and shrub replacement in the event of die-off, disease or damage due to accidents.
- 6. Maximum height shall be maintained to comply with the H (Airport Approach Height) District, Section 19.76.080 or within the specified maximum height limit for an approved Zone Variance that is active for this project.
- 7. Designed to preserve safe lines-of-sight and viewshed standards for drivers on the road.
- 8. Be installed prior to final occupancy.
- 9. After year 1 of planting, the Project proponent shall submit documentation to the Kern County Planning and Natural Resources Department indicating successful species survival and rate of porosity growth. This shall be achieved through photo documentation and/or reporting of maintenance logs and growth rates to be submitted each spring, preferably after shrubs have begun to leaf out, but, if necessary, could be conducted any time during the summer. Documentation shall be submitted each year for the first five (5) years or until the vegetation reaches maturity, whichever occurs first, in order for Kern County Planning and Natural Resources Department to confirm all growth has successfully reached maturity level.
- e. Should perimeter fencing be proposed, fencing materials shall be constructed of any materials commonly used in the construction of fences and walls such as wood, stone, rock, tubular steel, wrought iron, or brick, or other durable materials. Masonry block walls shall be decorative and not bare masonry blocks. Decorative materials can include a façade, colored masonry blocks, or other materials. Fencing proposed around sumps shall be chain-link with view obscuring slats.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.1-1** through **MM 4.1-3**, impacts would be less than significant after mitigation.

Impact 4.1-4: The Project would create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area.

Light and glare are defined by the Illuminating Engineering Society (IES) of North America as:

***Light** - Radiant energy that is capable of exciting the retina and producing a visual sensation in humans, and*

***Glare** - the sensation produced by luminance in the visual field that is sufficiently greater than the luminance to which the eye has adapted to cause annoyance, discomfort, or loss of visual performance and visibility (IES 2024).*

The Project site currently contains no sources of light or glare, and sources of illumination in the immediate surrounding area are limited in number and intensity. Lighting and glare impacts that would result from construction and operations of the Project are described below.

Construction**Lighting**

The typical construction activities would occur from 7 a.m. to 8 p.m. Monday through Friday. While most construction activities would primarily occur during daytime hours, additional hours/days may be necessary to facilitate the schedule necessitating construction crews to use minimal illumination in order to perform work safely during construction outside of seasonal daytime hours or during nighttime work. All lighting used for construction would be shielded and directed downward to ensure lighting is focused on the work area only and prevent light spillage onto adjacent properties along Airport Drive. During construction, dawn-to-dusk security lighting may be required for temporary staging and parking areas, construction office trailer entries, and project access points. Per **Mitigation Measure MM 4.1-4**, a lighting plan would be prepared for review and approval by the Kern County Public Works Department to ensure any nighttime lighting and construction work would provide the minimum illumination needed to achieve safety and security objectives only, thereby minimizing adverse impacts to nearby residents along Airport Drive. Kern County Public Works Department inspectors will verify compliance with this mitigation measure during the implementation of the Project during regular site inspections. As a result, construction of the Project would result in less than significant lighting impacts.

Glare

While most construction activities would primarily occur during daytime hours, construction crews may need to use minimal illumination in order to perform work safely during construction outside of seasonal daytime hours or during nighttime work. Increased truck traffic related to transport of construction materials to the Project site would temporarily increase glare conditions during construction. However, this increase to glare would be minimal and temporary. Construction activity would occur on focused areas of the Project site as construction progresses and sources of glare would not be stationary for long periods of time. Therefore, construction of the Project would

not create a new source of substantial glare that would affect daytime views in the area and impacts would be less than significant.

Operations

Lighting

The Project site would be regularly illuminated at night due to the 24-hour, 365 day per year operations at the proposed facility. Permanent lighting at the Project site would be designed to provide the minimum illumination needed to achieve safety and security objectives. Additionally, lighting would be directed downward and shielded to focus illumination on the desired areas only and to minimize light trespass in accordance with applicable County requirements including Chapter 19.81 (Dark Skies Ordinance), as required with implementation of **Mitigation Measures MM 4.1-4**. With the implementation of **Mitigation Measures MM 4.1-4** and compliance with applicable local development standards and regulations, lighting impacts onto adjacent properties and roads during operations would be less than significant.

Glare

Potential new sources of glare include sunlight reflecting off glass surfaces on the proposed building design. The greatest instance of glare occurrence that could affect nearby sensitive receptors, such as the residences to the east across Airport Drive, would be in the morning hours, specifically during sunrise and late morning, when easterly sunlight reflects off of building windows, back onto such residences. With the implementation of **Mitigation Measure MM 4.1-1**, which requires the building to be finished and treated with matte and nonglossy finishes, and **Mitigation Measure MM 4.1-2**, which requires that reflective metal not be used as exterior architectural elements on buildings immediately adjacent to Boughton Drive and Airport Drive, the instances of glare would be minimized to a less than significant level.

The following mitigation measure would be implemented to reduce the level of significance.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.1.4**, **MM 4.1-2**, and **MM 4.1-4** would be required.

MM 4.1.4 Prior to issuance of building permits, the Project proponent shall demonstrate to Kern County Planning and Natural Resources Staff, through the submittal of a lighting plan, that the Project site will continuously comply with the applicable provisions of the Outdoor Lighting - Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance) and shall be designed to provide the minimum illumination needed to achieve safety and security objectives. All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass onto adjacent properties and roadways. Lenses and bulbs shall not extend below the shields.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.1-1**, **MM 4.1-2**, and **MM 4.1-4**, impacts would be less than significant after mitigation.

4.1.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

While the Project is located in unincorporated Kern County, it is regulated by the MBGP, which guides development between local jurisdictions for an area of 408 square miles. The geographic scope for cumulative visual and aesthetics impacts consists of a 6-mile radius from the Project area. The Projects considered in the cumulative analysis for this Project are described in Chapter 3, *Project Description*, Table 3-4, *Cumulative Projects*. There are no proposed projects within the 1-mile radius of the Project site. However, there are approximately 29 projects located within a 6-mile buffer and consist of office uses, retail, and other industrial uses, including warehouses, trucking facilities, logistics center, and truck stops. Combined, these have the potential to result in cumulative impacts to aesthetics when considered together with the Project, although obstructions of views would be approximately 1 mile or less due to the scale and nature of the facility and its inability to obstruct anything further than 1 mile.

There is no cumulative impact related to damaging scenic resources within a scenic highway, because there are no officially designated State or County Scenic Highways in the cumulative Project area.

Cumulative development in the area would consist of industrial uses, guided by the Land Use Element of the MBGP. Per the MBGP, cumulative industrial projects would be encouraged to utilize landscaping, such as the Project, to upgrade the visual character of these industrial areas. These design features would provide buffers and screened areas that ensure appropriate scale would be achieved at the pedestrian level for surrounding residential uses. While increased development of industrial uses would alter the landscape from the original form, the MBGP would ensure industrial uses would not clash with surrounding uses. Furthermore, reasonably foreseeable cumulative projects would go through project-level environmental review and would be held to the same standards as the Project. The incorporation of consistent colors of surrounding landscape and vegetation screening as required by **Mitigation Measures MM 4.1-1** through **MM 4.1-3** would further ensure visual quality is consistent with policies in the MBGP for industrial uses.

Impact 4.1-4 (Lighting and Glare) resulting from the Project can be reduced below a level of significance with the implementation of **Mitigation Measures MM 4.1-1**, **MM 4.1-2**, and **MM 4.1-4**, which introduce the requirements for a lighting plan, reduction of glossy or reflective surfaces, and requirement to follow Kern County's Dark Skies Ordinance.

The Project, in combination with other listed projects would be required to conform to the provisions of the MBGP and the respective general plans of neighboring jurisdictions, as needed. Policies within the MBGP considers the impact that industrial development may have on surrounding uses, specifically residential land uses to reduce impacts on light and unattractive buildings. Feasible projects would be required to adhere to these policies in industrial uses determined by the MBGP.

The cumulative industrial and manufacturing projects within Metropolitan Bakersfield area would change vacant lands to industrial and manufacturing uses and would potentially change the overall character; however, the MBGP requires such projects to implement various design features to upgrade the visual character of such uses. In addition to MBGP policies, similar to the Project, other projects would implement landscaped screens and lighting regulations, per **MM 4.1-1** through **MM 4.1-4** as to not clash with existing character. Therefore, with implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-4** in addition to development standards outlined within the Zoning Ordinance for the M-1 PD District, cumulative impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-4** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-4**, cumulative impacts would be less than significant after mitigation on the visual character of the area. Cumulative impacts would be less than significant on scenic vistas or resources and for light and glare.

Section 4.2

Agricultural and Forestry Resources

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Agriculture and Forestry Resources

4.2.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting regarding agriculture and forest resources. It also evaluates the impacts on agriculture and forestry resources that would result from the implementation of the proposed IPG Industrial Project (the Project) and includes mitigation measures that would reduce these impacts, if necessary.

This section is informed by the 2022 Kern County Agricultural Crop Report prepared by the Department of Agriculture and Measurement Standards and the California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP).

4.2.2 Environmental Setting

Regional Setting

Kern County is California's third largest county, encompassing 8,161 square miles at the southern end of the Central Valley. Kern County has a history of agricultural operations with approximately 1,373 square miles of harvested agricultural land and 2,317 square miles of range land. The 2022 Total Agricultural Product Value produced in Kern County was \$7,724,166,300 (**Table 4.2-1**), which is a decrease of 7.4% over the 2021 Agricultural Product Value (\$8,341,294,840) (Kern County Department of Agriculture 2022). The top five commodities for 2022 were grapes, citrus, milk, almonds, and pistachios, which make up more than \$5 billion (66%), of the Total Agricultural Product Value. The top 20 commodities make up 96% of the Total Value (Kern County Department of Agriculture 2022), as shown in **Table 4.2-1**.

Table 4.2-1: Agricultural Product Values for Kern County in 2022

Product	Total Value
Fruit and Nut Crops	\$4,464,472,000
Field Crops and Rangeland	\$397,032,000
Vegetable Crops	\$1,141,127,000
Nursery Crops	\$141,298,000
Industrial and Wood Crops	\$34,853,000
Seed Crops	\$8,428,300
Livestock and Poultry	\$340,526,000
Livestock and Poultry Products	\$1,092,651,000
Apiary Products	\$103,779,000
TOTAL	\$7,724,166,300

Source: Kern County Department of Agriculture 2022.

Kern County's agricultural areas face pressure to convert productive farmland to housing, industrial, and commercial development. Kern County's population is growing and, like many agriculturally based jurisdictions, it must balance urbanization with loss of farmland. The most recent data from 2018 to 2020 published by the California DOC Division of Land Resource Protection (DLRP) provides the acres of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and farmland of local importance that have been converted to nonagricultural use. **Table 4.2-2** lists the total number of Important Farmland acres in Kern County that decreased in all agricultural designations, except Unique Farmland and Grazing Land (DOC 2020a).

Table 4.2-2: Agricultural Land Acreage Changes from 2018 to 2020

Agricultural Designation	Total Acres 2018	Total Acres 2020	Acres Lost	Acres Gained	Total Acres Changed	Net Acres Changed
Prime Farmland	573,934	567,066	8,927	2,059	10,986	-6,868
Farmland of Statewide Importance	208,323	207,938	1,880	1,495	3,375	-385
Unique Farmland	91,770	93,710	1,139	3,079	4,218	1,940
Farmland of Local Importance	0	0	0	0	0	0
Important Farmland Subtotal	874,027	868,714	11,946	6,633	18,579	-5,313
Grazing Land	1,854,639	1,857,259	8,366	10,986	19,352	2,620
Agricultural Land Subtotal	2,728,666	2,725,973	20,312	17,619	37,931	-2,693

Source: California DOC 2020b.

According to the Kern Council of Governments (COG) in their *Regional Growth Forecast and Demographic Forecast 2024 to 2050 Growth Forecast Update* report (2024), projections show that Kern County's population will grow at a rate of 0.4%, from 911,607 people in 2024 to 1,020,272 people in 2050 (Kern COG 2024). The anticipated growth in population will likely play a role in the decrease in agricultural land in Kern County. However, it is important to note that the conversion of agricultural land is affected by numerous factors other than population growth and urban development. Actual production depends on commodity prices, water prices and supply, labor, the proximity of processing and distribution facilities, and pest management. Factors such as weather, trade agreements, and labor disputes can also affect decisions regarding what crops are grown and which lands go in and out of production.

Local Setting

The Project site is located on approximately 49.05 acres, comprised of two privately owned parcels, in the central portion of unincorporated Kern County, California. The Project site is approximately 1.7 miles north of the incorporated city of Bakersfield and approximately 3.1 miles east of the incorporated city of Shafter. The unincorporated community of Oildale directly abuts the east side of the Project site. The Project site is approximately 1.4 miles northeast of State Route (SR) 99. SR 99 and Merle Haggard Drive via Airport Drive provide regional access to the Project site. Local access to the Project site is via Airport Drive and Boughton Drive.

The Project site can be described as flat; however, outside of leveled fields and orchards, the area is better described as an uneven plain consisting of extensive alluvial fans, debris flow, and over-bank deposits. The valley floor's vegetation is predominated by modern cultigens and other non-native species, such as Russian thistle (tumbleweed) and grasses. The Project vicinity is characterized by industrial and commercial uses (for example, distribution, storage, and shipping centers), transportation, vacant land, and residential uses to the east of the Project site.

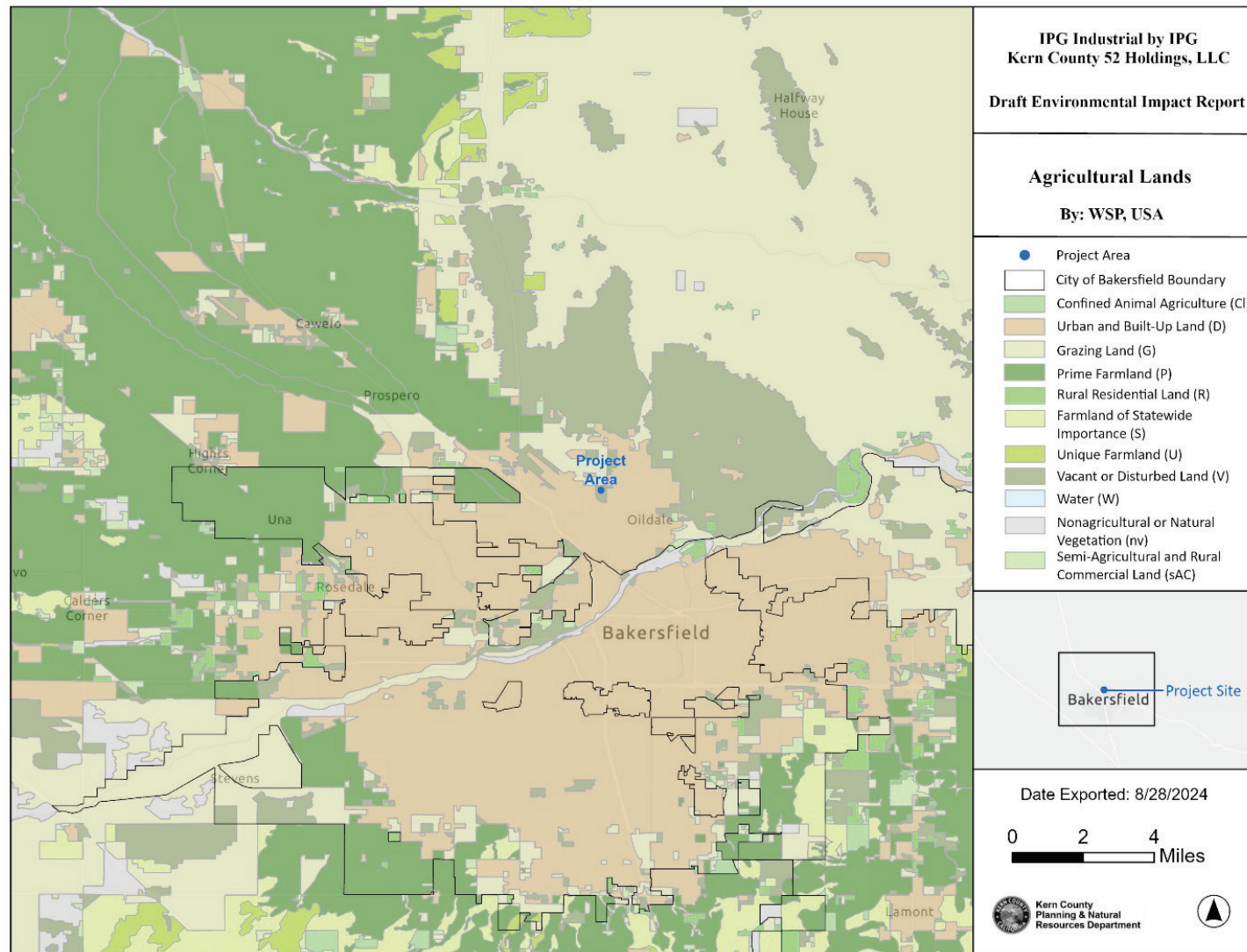
Adopted General Plan Land Use and Zoning

Kern County and the City of Bakersfield have jointly adopted the Metropolitan Bakersfield General Plan (MBGC) for the metropolitan area (City of Bakersfield and Kern County 2007). While the Project is located within unincorporated Kern County, it falls within the administrative boundaries of the MBGP planning document. The land use designation of the Project site is designated as LI (Light Industrial) and zoned as Light Industrial (M-1) – Precise Development (PD) Combining District – Airport Approach Height (H) District (M-1 PD H). The PD and H overlays on the M-1 base district allow for the combining of districts to ensure that development in these designated areas are compatible with surrounding land uses. The proposed Project is compatible with land use designation LI and zoning district M-1 PD H.

Important Farmland, Forest Land, and Williamson Act Contracts

As indicated in Chapter 3, *Project Description*, the Project site is not within an area that is designated by the California DOC as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. No lands within the Project boundary are subject to a Williamson Act Land Use contract. The Project site is not within a Farmland Security Zone contract, nor is the Project site situated on forest or timberland, as illustrated on **Figure 4.2-1**.

Figure 4.2-1 Agricultural Lands



4.2.3 Regulatory Setting

Federal

Farmland Protection Policy Act (7 United States Code Section 4201)

The Farmland Protection Policy Act (FPPA) minimizes federal programs' contributions to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It also directs federal programs to be compatible with state and local policies to protect farmland. Congress passed the Agriculture and Food Act of 1981 (Public Law 97-98) containing the FPPA—Subtitle I of Title XV, Sections 1539-1549. The final rules and regulations were published in the Federal Register on June 17, 1994.

The FPPA minimizes the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It ensures that, to the extent possible, federal programs are administered to be compatible with state, local government, and private programs and policies to protect farmland. Federal agencies develop and review their policies and procedures to implement the FPPA every two years. The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or, in any way affect property owner rights.

Under the FPPA, “farmland” includes Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance. Farmland subject to FPPA requirements does not have to be used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency.

State

California Department of Conservation, Division of Land Resource Protection

The California DOC applies the Natural Resources Conservation Service soil classifications to identify agricultural lands. These agricultural designations are used to plan present and future California agricultural land resources. The DOC has a minimum mapping unit of 10 acres—parcels smaller than 10 acres are absorbed into the surrounding classifications.

The following list describes all the categories mapped by the DOC (DOC 2024).

- **Prime Farmland (P):** Farmland with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been irrigated for production of irrigated crops at some time during the four years prior to the mapping date.

- **Farmland of Statewide Importance (S):** Farmland similar to prime Farmland that has a good combination of physical and chemical characteristics for the production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland. Land must have been irrigated for production of irrigated crops at some time during the four years prior to the mapping date.
- **Unique Farmland (U):** Farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include non-irrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- **Farmland of Local Importance (L):** Although counties may choose to define Farmland of Local Importance within their jurisdictions, the Board of Supervisors has determined that there will be no Farmland of Local Importance for Kern County (DOC 2018).
- **Grazing Land (G):** Land on which the existing vegetation is suited to the grazing of livestock. This category is used only in California and was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.
- **Urban and Built-up Land (D):** Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.
- **Other Land (X):** Land not included in any other mapping category. Common examples include low-density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry, or aquaculture facilities; strip mines and borrow pits; and waterbodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as other land.

The Rural Land Mapping Project provides more detail on the distribution of various land uses within the Other land category in eight FMMP counties, encompassing all the San Joaquin Valley counties. The rural land categories include:

- Rural Residential Land (R): Residential areas of one to five structures per 10 acres (ranchettes).
- Semi-agricultural and Rural Commercial Land (SAC): Farmsteads, agricultural storage and packing sheds, unpaved parking areas, composting facilities, equine facilities, firewood lots, and campgrounds.
- Vacant or Disturbed Land (V): Open field areas that do not qualify as an agricultural category, mineral and oil extraction areas, off-road vehicle areas, electrical substations, channelized canals, and rural freeway interchanges.

- Confined Animal Agriculture (CI): Poultry facilities, feedlots, dairy facilities, and fish farms; this use may be a component of farmland of local importance in some counties.
 - Nonagricultural or Natural Vegetation (nv): Heavily wooded, rocky/barren areas, riparian and wetland areas, grassland areas that do not qualify as grazing land due to their size of land management restrictions, small waterbodies, and recreational water ski lakes. Constructed wetlands are also included in this category.
- **Water (W):** Perennial waterbodies with an extent of at least 40 acres.

California Land Conservation Act (Williamson Act)

The Land Conservation Act of 1965, also known as the Williamson Act, is promulgated in California Government Code Section 51200-51297.4 and applies only to specific land parcels within California. The Williamson Act enables local governments to enter contracts with private landowners to restrict specific parcels of land to agricultural or compatible uses in return for reduced property tax assessments. Participation in the Williamson Act program depends on county adoption and implementation of the program and is voluntary for landowners.

Under the Williamson Act, a landowner commits the parcel to a 10-year period, during which time no conversion out of agricultural use is permitted. In return, the land is taxed at a rate based on the actual use (such as agricultural production), as opposed to its unrestricted market value. Each year the contract automatically renews unless a notice of nonrenewal or cancellation is filed. However, the application to cancel must be consistent with the criteria of the affected county or city. Nonrenewal or contract cancellation does not change a property's zoning. Participation in the Williamson Act program, which is voluntary for landowners, depends on a county's willingness to adopt and implement the program. The Williamson Act states that a board or council will, by resolution, adopt rules governing the administration of agricultural preserves. The rules of each agricultural preserve specify the allowed uses. Generally, any commercial agricultural use would be permitted within any agricultural preserve. In addition, local governments may identify compatible uses allowed under a permit (DOC 2023).

California Government Code Section 51238 states that, unless otherwise decided by a local board or council, the erection, construction, alteration, or maintenance of electric and communication facilities, as well as other facilities, are determined to be compatible uses within any agricultural preserve. In addition, Section 51238 states that the board of supervisors may impose conditions on lands or land uses to be placed within preserves to permit and encourage compatible uses, in conformity with Section 51238.1. Furthermore, under California Government Code Section 51238.1, a board or council may allow any use that without conditions or mitigations would otherwise be considered incompatible. However, this may occur only if that use meets the following conditions:

- The use would not significantly compromise the long-term agricultural capability of the subject contracted parcel or parcels on other contracted lands in agricultural preserves.

- The use would not significantly displace or impair current or reasonably foreseeable agricultural operations on the subject contracted parcel or parcels on other contracted lands in agricultural preserves. Uses that significantly displace agricultural operations may be deemed compatible if they relate directly to the production of commercial agricultural products on the subject contracted parcel or parcels or neighboring lands, including activities such as harvesting, processing, or shipping.
- The use would not result in the significant removal of adjacent contracted land from agricultural or open-space use.

Kern County has an active Williamson Act Land Use Contract Program with 1,650,556 acres of participating land in Kern County, of which 554,266 acres are designated as Prime Agricultural Farmland.

Farmland Security Zone Act

The Farmland Security Zone Act is similar to the Williamson Act and was passed by the California State Legislature in 1999 to ensure that long-term farmland preservation is part of public policy. Farmland Security Zone Act contracts are sometimes referred to as “Super Williamson Act Contracts.” Under the provisions of this act, a landowner already under a Williamson Act contract can apply for Farmland Security Zone Act status by entering into a contract with the County. Farmland Security Zone Act classification automatically renews each year for an additional 20 years. In return for a 35% reduction in the taxable value of land and growing improvements (in addition to Williamson Act tax benefits), the property owner promises not to develop the property into nonagricultural uses.

Public Resources Code Section 21060.1

Public Resources Code Section 21060.1 uses the FMMP to define agricultural land to assess environmental impacts. The FMMP was established in 1982 to assess the location, quality, and quantity of agricultural lands and analyze the conversion of such lands. The FMMP provides an analysis of agricultural land use changes throughout California.

Local

Metropolitan Bakersfield General Plan

The City of Bakersfield is the largest incorporated area in Kern County and the focus of business activity in the county. As such, Kern County and the City of Bakersfield have jointly adopted a general plan to guide land use decisions and future development in the Metropolitan Bakersfield planning area, a planning area comprised of 409 square miles. The Project is subject to goals, policies, and implementation of the MBGP (City of Bakersfield and Kern County 2007). Applicable goals, policies and implementation are provided below.

The MBGP includes two designations for agricultural land:

- R-IA: Intensive agriculture, minimum 20-acre parcel size

- R-EA: Extensive agriculture, minimum 20-acre parcel size (Lands under Williamson Act, minimum 80-acre parcel size)

The policies, goals, and implementation measures in the MBGP for agricultural resources applicable to the Project are provided below.

Chapter II: Land Use Element

Goals

Goal 3: Accommodate new development which is compatible with and complements existing land uses.

Chapter V: Conservation/Soils and Agriculture

Goals

Goal 1: Provide for the planned management, conservation, and wise utilization of agricultural land in the planning area.

Goal 2: Promote soil conservation and minimize development of prime agricultural land as defined by the following criteria:

- Capability Class 1 and/or II irrigated soils
- 80-100 Storie Index rating
- Gross crop return of \$200 or more per acre per year
- Annual carrying capacity of 1 animal unit per acre per year

Goal 3: Establish urban development patterns and practices that promote soil conservation and that protect areas of agricultural production of food and fiber crops, and nursery products.

Policies

Policy 1: Determine the extent and location of all prime agricultural land within the study area.

Policy 6: Continue implementing land grading ordinances that reduce soil erosion/siltation commonly associated with land development.

Policy 12: Prohibit premature removal of ground cover in advance of development and require measures to prevent soil erosion during and immediately after construction.

Policy 13: Minimize the alteration of natural drainage and require development plans to include necessary construction to stabilize runoff and silt deposition through enforcement of grading and flood protection ordinances.

Kern County Zoning Ordinance

The Kern County Zoning Ordinance establishes basic regulations for land development. The basic intent of the Kern County Zoning Ordinance is to promote and protect public health, safety, and welfare via the orderly regulation of land uses throughout the unincorporated area of the county. The zoning ordinance applies to all property in unincorporated Kern County, except land owned by the United States or any of its agencies. Pursuant to state law, the zoning ordinance must be consistent with the appropriate general plan, in this instance the MBGP. Within the MBGP, the Project site has a Land Use Map Code of LI (Light Industrial), which is consistent with the existing zone classification of M-1 PD H (Light Industrial – Precise Development Combining – Airport Height Approach Combining) District. The base M-1 District contains the PD and H combining districts overlays to ensure that development in these designated areas are compatible with surrounding land uses. Applicability and purpose of each zoning district is discussed further in Section 4.11, *Land Use and Planning* of this EIR.

Williamson Act Standard Uniform Rules

Kern County has adopted a set of Agricultural Preserve Standard Uniform Rules that identify land uses that are considered compatible uses within agricultural preserves established under the Williamson Act. These rules are designed to restrict the uses of land enrolled in a Williamson Act contract to agriculture or other compatible uses. The Agricultural Preserve Standard Uniform Rules identify five classes of agricultural uses, including crop cultivation, grazing operations, commercial wind farms, livestock breeding, dairies, and uses that are incidental to agricultural uses allowed within the agricultural preserves. The Project site does not contain lands under an active Williamson Act contract and, therefore, is not subject to these rules.

4.2.4 Impacts and Mitigation Measures

Methodology

This section of the Draft EIR describes the potential impact of the Project on agriculture and forestry resources. The analysis was conducted based on a qualitative review and analysis of the Kern County Agricultural Crop Report, California DOC DLRP's Important Farmland Map, and Kern County's Williamson Act Map. In addition, the analysis of potential impacts is based on the MBGP's applicable goals and policies related to agricultural resources.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist state that a project would have a significant impact on agricultural and forestry resources if it would:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use;
- Conflict with existing zoning for agricultural use or a Williamson Act contract;
- Conflict with existing zoning for, or cause rezoning of, forest land or timberland;

- Result in the loss of forest land or conversion of forest land to non-forest use;
- Involve other changes in the existing environment which, because of their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use; and
- Result in the cancellation to an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres.

Project Impacts

Impact 4.2-1: The Project would Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use.

As previously stated in Section 4.2.2, and depicted on **Figure 4.2-1**, the Project site is not within any Prime Farmland, Unique Farmland, or Farmland of Statewide Importance designated areas. The Project site is classified as vacant or disturbed land, nonagricultural or natural vegetation, urban and built-up land, and semi-agricultural and rural commercial land by the DOC.

Neither the Project site or surrounding properties are remotely adjacent to land that is designated Prime, Unique or of Statewide Importance, therefore, no impacts relative to farmland conversion would occur, and no mitigation measures would be required.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.2-2: The Project would conflict with existing zoning for agricultural use or Williamson Act Contract.

As stated in Section 4.2.2, the Project site is zoned for industrial uses, and no Williamson Act contracts are present on the site.

Therefore, implementation of the Project would not be in conflict with existing agricultural zoning. No impact to existing agricultural zoning or Williamson Act contracts would occur, and therefore, no mitigation measures are required.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.2-3: The Project would conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)) or timberland (as defined in Public Resources Code Section 4526) or timberland zoned Timberland Production (as defined by Government Code Section 51104(g)).

The Project site's land use designation is LI (Light Industrial) and further zoned as Light Industrial (M-1) – Precise Development (PD) Combining District – Airport Approach Height (H) District (M-1 PD H). Per the land use designation and combined zoning district, the Project site is intended to be utilized for light industrial uses, per the MBGP. The Project site does not contain agricultural or forest resources to support timberland, forest land, or production of timber. The Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland, nor would it conflict with timber production.

Therefore, no impact would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.2-4: The Project would result in the loss of forest land or conversion of forest land to non-forest use.

As described in Section 4.2.2, *Environmental Setting*, the Project area is characterized as vacant or disturbed land, nonagricultural or natural vegetation, urban and built-up land, and semi-agricultural and rural commercial land. Due to a lack of forest land on the site, the Project would not result a loss of forest land or conversion of forest land to non-forest use.

Therefore, no impacts would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.2-5: The Project would involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or conversion of forest land to non-forest use.

The Project site is not within an area used for, or that supports farmland or forest land. The Project site is made up of vacant or disturbed land which is zoned and designated for industrial uses. Therefore, Project implementation would not result in permanent changes to the environment that, due to location or nature, would result in conversion of farmland or forest land to nonagricultural use of non-forest use. No impacts would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.2-6: The Project would result in the cancellation of an open-space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres (Section 15206(b)(3)) Public Resources Code.

The Project site is not subject to an open-space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Act Contract. Therefore, the Project would not result in cancellation of any of the specified contracts, and no impact would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact would occur.

4.2.5 Cumulative Setting Impacts and Mitigation Measures

Cumulative Setting

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project site. The projects considered in the cumulative analysis for this Project are described in Chapter 3, *Project Description*, **Table 3-3: Cumulative Projects List**. The geographic scope for cumulative agricultural and forestry impacts consists of Kern County.

Because the Project and other surrounding industrial projects do not consist of any forested areas or Kern County's agricultural zones, no impacts would occur, and no cumulatively considerable impacts to agricultural and forest land resources would result.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact would occur.

Section 4.3

Air Quality

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4.3.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding air quality. It also evaluates the short- and long-term air quality impacts associated with the development of the proposed IPG Industrial Project (Project) site, and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the May 23, 2024, Airport Drive Warehouse Air Quality Impact Analysis and Construction and Operational Health Risk Assessment prepared by Urban Crossroads, Inc. (Appendix B.1) The report was prepared in accordance with the 2006 Kern County Planning Department's Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports and the 2015 San Joaquin Valley Air Pollution Control District (SJVAPCD) (SJVAPCD 2015) Guidance for Assessing and Mitigating Air Quality Impacts. Other supporting SJVAPCD documents are included in Appendix B.4.

4.3.2 Environmental Setting

The California Air Resources Board (CARB) has divided California into regional air basins according to topographic drainage features. The Project area is located within Kern County's portion of the San Joaquin Valley Air Basin (SJVAB or Basin). Kern County is included among the eight counties that comprise the SJVAPCD. The SJVAPCD acts as the regulatory agency for air pollution control in the Basin and is the local agency empowered to regulate air pollutant emissions for the Project area. The Project site is approximately 1.7 miles north of the incorporated City of Bakersfield and approximately 3.1 miles east of the incorporated City of Shafter. The unincorporated community of Oildale directly abuts the east side of the Project site. The Project site is situated approximately 1.4 miles northeast of State Route (SR) 99.

Topography and Meteorology

Air pollution, especially the dispersion of air pollutants, is directly related to a region's topographic features. Air quality is a function of the rate and location of pollutant emissions and the meteorological conditions and topographic features that influence pollutant movement and dispersal. Atmospheric conditions such as wind speed, wind direction, atmospheric stability, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, which affects ambient air quality.

The Project site is located on approximately 49.05 acres, comprised of two privately owned parcels, in the central portion of unincorporated Kern County, California. The Project site is located on the southwest corner of the intersection of Airport Drive and Boughton Drive in unincorporated Kern County. The site is bounded to the north by Boughton Drive and vacant/undeveloped land; to the

south by Skyway Drive and commercial buildings that provide services related to aircrafts; to the east by Airport Drive, residential area, and a storage provider business; and to the west by Hanger Way and Meadows Field Airport.

The SJVAB has an inland Mediterranean climate with warm, dry summers and relatively cool nights and cool winters with sparse rainfall. The most significant weather pattern within the San Joaquin Valley is the semi-permanent subtropical high-pressure cell, referred to as the “Pacific High.” During the summer, the Pacific High is positioned near the coast of northern California and redirects storms originating from the ocean to the north, resulting in essentially rainless summer months. During the winter, the Pacific High moves southerly allowing storms to pass through the San Joaquin Valley, resulting in most precipitation during December through April. During the summer, the predominant surface winds travel from the northwest and enter the Valley through the Carquinez strait to flow towards the Tehachapi Mountains. This northwesterly wind flow is interrupted in early fall by the emergence of southeasterly winds which become progressively more prevalent as winter approaches. Wind speeds are generally highest during the spring and lightest in fall and winter. The cool air flowing through the Carquinez Strait is warmed as it travels southerly through the Valley. Once reaching the southern end of the Valley, the average high temperature during the summer is nearly 100 degrees Fahrenheit (°F) with relatively low humidity, causing large temperature variations throughout the day. Temperatures during the summer often drop into the upper 60s. In winter, the average high temperatures reach the mid-50s and the average low drops to the mid-30s. Snow and thunderstorms are infrequent.

Additionally, another high-pressure cell, known as the “Great Basin High” develops east of the Sierra Nevada Mountain Range during winter. When this cell is weak, a layer of cool, damp air becomes trapped in the basin, and extensive fog results. During inversions, a warm dry air mass sits over cooler air near the ground, essentially trapping the air mass below and adversely affecting regional air quality. Surface-based inversions, while shallow and typically short-lived, are present most mornings. Elevated inversions, while less frequent than ground-based inversions, are typically longer lasting and create more severe air stagnation problems. The winter season characteristically has the poorest conditions for vertical mixing of the entire year.

The distinctive climate of the Project area and the SJVAB is determined by its terrain and geographical location. The SJVAB is surrounded by mountains that restrict air movement and limit the dispersion of pollutants out of the basin. Wind patterns across this region are characterized by light northerly and northeasterly winds, with an average speed of seven miles per hour. In the summer, winds from the north flow south and southeasterly through the Valley, through the Tehachapi Pass and into the Southeast Desert Air Basin. In the late fall and winter, cold winds from the south flow northerly and northwesterly into the Valley. Wind speed and direction determine the dispersion of air pollutants (Urban Crossroads 2024).

Sensitive Receptors

Some land uses are considered more sensitive to air pollution than others due to the types of population groups or activities involved. Land uses that can be considered sensitive receptors include residential communities, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. Sensitive individuals with compromised immune systems, such as children and the elderly, may be exposed to emissions from the construction and operation of the Project. Worker receptors refer to employees and locations where people work. Impacts on sensitive receptors are of particular concern because they are the people most vulnerable to the effects of air pollution.

Existing Air Quality

The SJVAPCD, CARB, National Park Service, and Santa Rosa Rancheria in Lemoore operate an extensive network of air monitoring stations in the San Joaquin Valley. The monitoring station network provides air quality monitoring data, including real-time meteorological data and ambient pollutant levels, as well as historical data. The network in the SJVAB consists of 38 monitoring stations, 11 of which are in western Kern County within the Project area (Appendix B.1).

Relative to the Project site, the nearest long-term air quality monitoring site for ozone (O_3) and particulate matter of 10 microns or less (PM_{10}) was obtained from the SJVAPCD Oildale-Manor Street monitoring station, located approximately 1.43 miles east of the Project site. Since data for $PM_{2.5}$ was unavailable, the next nearest long-term air quality monitoring site was obtained from the SJVAPCD Bakersfield-Golden State Highway monitoring station, located approximately 3.20 miles southeast of the Project site. Since data for nitrogen dioxide (NO_2) was unavailable, the next nearest long-term air quality monitoring site was obtained from the SJVAPCD Bakersfield-Westwind monitoring station, located approximately 3.48 miles south of the Project site.

Data from the Bakersfield-Golden State Highway and Bakersfield-Westwind monitoring stations were utilized only in instances where data was not available from the Oildale-Manor Street monitoring station.

The most recent three years of data available is shown in **Table 4.3-1** and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project site. Data for O_3 , NO_2 , PM_{10} , and particulate matter of 2.5 microns or less ($PM_{2.5}$) was obtained using the CARB iADAM: Air Quality and Data Statistics and the Air Quality and Meteorological Information System. Data for sulfur dioxide (SO_2) has been omitted as attainment is regularly met and few monitoring stations measure SO_2 concentrations. It should be noted that the table below is provided for informational purposes.

Table 4.3-1: Existing Air Quality Monitoring Data in Project Area

Pollutant	Standard	Year		
		2020	2021	2022
Ozone				
Maximum Federal 1-Hour Concentration (ppm)		0.109	0.107	0.106
Maximum Federal 8-Hour Concentration (ppm)		0.096	0.095	0.090
Number of Days Exceeding Federal 1-Hour Standard	> 0.09 ppm	0	0	0
Number of Days Exceeding State 1-Hour Standard		3	6	4
Number of Days Exceeding Federal 8-Hour Standard	> 0.070 ppm	23	43	51
Number of Days Exceeding State 8-Hour Standard	> 0.075 ppm	24	46	54
Nitrogen Dioxide				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	--	0.068	0.068
Maximum State 1-Hour Concentration	> 0.180 ppm	--	0.067	0.067
Annual Federal Standard Design Value		--	23	22
Annual State Standard Design Value		--	--	22
Number of Days Exceeding Federal 1-Hour Standard	> 0.100 ppm	0	0	0
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
Particulate Matter of 10 Microns or Less				
Maximum Federal 24-Hour Concentration (µg/m³)	> 150 µg/m³	517.2	421.4	149.4
Annual Federal Arithmetic Mean (µg/m³)		57.3	50.0	44.9
Number of Days Exceeding Federal 24-Hour Standard	> 150 µg/m³	17	2	0
Particulate Matter of 2.5 Microns or Less				
Maximum Federal 24-Hour Concentration (µg/m³)	> 35 µg/m³	150.2	78.5	58.6
Maximum State 24-Hour Concentration (µg/m³)		150.2	78.5	58.6
Annual Federal Arithmetic Mean (µg/m³)	>12 µg/m³	19.4	17.8	16.6
Annual State Arithmetic Mean (µg/m³)	>12 µg/m³	--	--	--
Number of Samples Exceeding Federal 24-Hour Standard	> 35 µg/m³	34	46	36

Source: Urban Crossroads 2024.

Notes: California Air Resource Board iADAM: Air Quality Data Statistics and Air Quality and Data Statistics and the Air Quality and Meteorological Information System.

-- = data not available

 $\mu\text{g}/\text{m}^3$ = microgram per cubic meter

ppm = parts per million

Ambient Air Quality Standards

National and State Ambient Air Quality Standards

Regulation of air pollution is achieved through both federal and state ambient air quality standards and permitted emission limits for individual sources of air pollutants. As required by the federal Clean Air Act (CAA), the U.S. Environmental Protection Agency (EPA) has identified criteria pollutants and has established National Ambient Air Quality Standards (NAAQS) to protect public health and welfare. NAAQS have been established for O₃, carbon monoxide (CO), NO₂, SO₂, particulate matter (specifically PM₁₀ and PM_{2.5}), and lead. These pollutants are called “criteria” air pollutants because standards have been established for each of them to meet specific public health and welfare criteria.

To protect human health and the environment, the EPA has set “primary” and “secondary” ambient standards for each of the criteria pollutants. Primary thresholds were set to protect human health, particularly sensitive receptors, such as children, the elderly, and individuals suffering from chronic lung conditions, such as asthma and emphysema. Secondary standards were set to protect the natural environment and prevent further deterioration of animals, crops, vegetation, and buildings.

Regional and Local Standards

NAAQS establish the level for an air pollutant above which detrimental effects to public health or welfare may result. NAAQS are defined as the maximum acceptable concentrations that, depending on the pollutant, may not be equaled or exceeded more than once per year or in some cases as a percentile of observations. California has generally adopted more stringent ambient air quality standards for the criteria air pollutants (i.e., California Ambient Air Quality Standards [CAAQS]). California has also established CAAQS for sulfates, hydrogen sulfide, and vinyl chloride; however, air emissions of these pollutants are not expected to occur under the Project and, thus, these pollutants are not addressed further in this Draft EIR.

Table 4.3-2 presents both sets of ambient air quality standards (e.g., national and State). If a pollutant concentration in an area is lower than the established standard, the area is classified as being in “attainment” for that pollutant. If the pollutant concentration meets or exceeds the standard (depending on the specific standard for the individual pollutants), the area is classified as a “nonattainment” area. If there are not enough data available to determine whether the standard is exceeded in an area, the area is designated “unclassified.”

Table 4.3-2: National and California Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards ^(b, e)	National Standards ^(a, e)	
			Primary ^(c)	Secondary ^(d)
Ozone (O ₃)	1-Hour	0.09 ppm (180 µg/m ³)	--- ^(f)	---
	8-Hour	0.070 ppm (137 µg/m ³)	0.070 ppm (147 µg/m ³)	Same as Primary Standard
Carbon monoxide (CO)	1-Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	---
	8-Hour	9.0 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)	---
Nitrogen dioxide (NO ₂)	1-Hour	0.18 ppm (339 µg/m ³)	100 ppb (188 µg/m ³)	---
	Annual Mean	0.030 ppm (57 µg/m ³)	0.053 ppm (100 µg/m ³)	Same as Primary Standard
Sulfur dioxide (SO ₂) ^(g)	1-Hour	0.25 ppm (655 µg/m ³)	75 ppb (196 µg/m ³)	---
	3-Hour	---	---	0.5 ppm (1,300 µg/m ³)
	24-Hour	0.04 ppm (105 µg/m ³)	---	---
Respirable Particulate Matter (PM ₁₀) ^(h)	24-Hour	50 µg/m ³	150 µg/m ³	Same as Primary Standard

Pollutant	Averaging Time	California Standards ^(b, e)	National Standards ^(a, e)	
			Primary ^(c)	Secondary ^(d)
	Annual Mean	20 µg/m ³	---	---
Fine Particulate Matter (PM_{2.5})^(h)	24-Hour	---	35 µg/m ³	Same as Primary Standard
	Annual Mean	12 µg/m ³	9.0 µg/m ³	15 µg/m ³
Lead (Pb)	30-day Average	1.5 µg/m ³		
	Rolling 3-month Average		0.15 µg/m ³	Same as Primary Standard
Hydrogen sulfide (H₂S)	1-Hour	0.03 ppm (42 µg/m ³)	No Federal Standards	
Sulfates (SO₄²⁻)	24-Hour	25 µg/m ³		
Visibility reducing particles	8-Hour	See Note (i)		
Vinyl chloride⁽ⁱ⁾	24-Hour	0.01 ppm (26 µg/m ³)		

Sources: CARB 2016; EPA 2024;

Notes:

- (a) National Ambient Air Quality Standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth-highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For particulate matter less than 10 microns (PM₁₀), the 24-hour standard is not to be exceeded more than once per year on average over three years. The 24-hour standard is attained when the three-year average of the weighted annual mean at each monitor within an area does not exceed 150 µg/m³. For particulate matter less than 2.5 microns (PM_{2.5}), the 24-hour standard is attained when 98% of the daily concentrations, averaged over three years, do not exceed 35 µg/m³. The annual standard is attained when the three-year average of the weighted annual mean at single or multiple community-oriented monitors does not exceed 12 µg/m³.
- (b) California Ambient Air Quality Standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (SO₂; 1- and 24-hour), nitrogen dioxide (NO₂), PM₁₀ and visibility reducing particles, are values that are not to be exceeded. All others are not to be equalled or exceeded.
- (c) National Primary Standards: The levels of air quality necessary, with an adequate margin of safety, to protect the public health.
- (d) National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse impacts of a pollutant
- (e) Concentration expressed first in units in which it was promulgated. Parts per million (ppm) in this table refers to ppm by volume or micromoles of pollutant per mole of gas.
- (f) The federal 1-hour ozone standard was revoked for most areas of the United States, including all of California on June 15, 2005.
- (g) Final rule signed June 2, 2010. The 1971 annual and 24-hour SO₂ standards were revoked in that same rulemaking.
- (h) On December 14, 2012, the national annual PM_{2.5} primary standard was lowered from 15 µg/m³ to 12 µg/m³. Existing national 24-hour PM_{2.5} standards (primary and secondary) were retained at 35 µg/m³, as was the annual secondary standard of 15 µg/m³. The existing 24-hour PM₁₀ standards (primary and secondary) of 150 µg/m³ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over three years.
- (i) In 1989, the California Air Resources Board converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are “extinction of 0.23 per kilometer” and “extinction of 0.07 per kilometer” for the statewide and Lake Tahoe Air Basin standards, respectively.
- (i) The California Air Resources Board has identified lead and vinyl chloride as “toxic air contaminants” with no threshold level of exposure for adverse health impacts determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

Key:

ppb = parts per billion

ppm = parts per million

µg/m³ = micrograms per cubic meter

mg/m³ = milligrams per cubic meter

Air Quality Attainment Planning

Currently, the NAAQS and CAAQS are exceeded in most parts of the SJVAB. For the NAAQS, the Project region within the SJVAB is in nonattainment for O₃ (8-hour) and PM_{2.5}. For the CAAQS, the Project region within the SJVAB is in nonattainment for O₃ (1-hour and 8-hour), PM₁₀, and PM_{2.5}. In response, the SJVAPCD has adopted a series of Air Quality Attainment Plans (AQAPs) to meet the state and federal ambient air quality standards (SJVAPCD 2024a). AQAPs are updated regularly to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy.

The SJVAPCD's attainment status with the federal and State standards, for each pollutant, is summarized in **Table 4.3-3**.

Table 4.3-3: Attainment Status for the San Joaquin Valley Air Pollution Control District

Pollutant	Designation/Classification	
	Federal	State
Ozone – 1-hour	Revoked ^(a)	Nonattainment/Severe
Ozone – 8-hour	Nonattainment/Extreme ^(b)	Nonattainment
PM ₁₀	Attainment ^(c)	Nonattainment
PM _{2.5}	Nonattainment ^(d)	Nonattainment
Carbon monoxide (CO)	Attainment/Unclassified	Attainment/Unclassified
Nitrogen dioxide (NO ₂)	Attainment/Unclassified	Attainment
Sulfur dioxide (SO ₂)	Attainment/Unclassified	Attainment
Lead (Pb)	No Designation/Classification	Attainment
Hydrogen sulfide (H ₂ S)	No Federal Standard	Unclassified
Sulfates (SO ₄ ²⁻)	No Federal Standard	Attainment
Visibility reducing particulate	No Federal Standard	Unclassified
Vinyl Chloride	No Federal Standard	Attainment

Source: SJVAPCD 2004a

Notes:

^(a) Even though the U.S. Environmental Protection Agency (EPA), revoked the federal 1-hour ozone standard, including associated designations and classifications in 2005, the EPA had previously classified the San Joaquin Valley Air Basin (SJVAB) as extreme nonattainment for this standard. The EPA approved the 2004 Extreme Ozone Attainment Demonstration Plan on March 8, 2010. Many applicable requirements for extreme 1-hour ozone nonattainment areas continue to apply to the SJVAB.

^(b) Though the San Joaquin Valley was initially classified as serious nonattainment for the 1997 8-hour ozone standard, the EPA approved reclassification to extreme nonattainment in the Federal Register on May 5, 2010.

^(c) On September 25, 2008, the EPA redesignated the San Joaquin Valley to attainment for the PM₁₀ standard and approved the PM₁₀ Maintenance Plan.

^(d) The San Joaquin Valley is designated nonattainment for the 1997 and 2006 PM_{2.5} standard.

Key:

PM₁₀ = particulate matter less than 10 microns

PM_{2.5} = particulate matter less than 2.5 microns

Criteria Air Pollutants

For the protection of public health and welfare, the federal CAA requires that the EPA establish NAAQS for various pollutants. These pollutants are referred to as “criteria” pollutants because the EPA publishes criteria documents to justify the choice of standards. These standards define the maximum amount of an air pollutant that can be present in ambient air. An ambient air quality standard is generally specified as a concentration averaged over a specific time period, such as 1 hour, 8 hours, 24 hours, or 1 year. The different averaging times and concentrations are meant to protect against different exposure effects. Standards established for the protection of human health are referred to as primary standards; whereas, standards established for the prevention of environmental and property damage are called secondary standards. The FCAA allows states to adopt additional or more health-protective standards. The air quality regulatory framework and ambient air quality standards are discussed in greater detail later in this report.

The following provides a summary discussion of the primary and secondary criteria air pollutants of primary concern. In general, primary pollutants are directly emitted into the atmosphere, and secondary pollutants are formed by chemical reactions in the atmosphere.

The following is a description of criteria air pollutants, typical sources, health effects, and current conditions.

Ozone

Ozone occurs in two layers of the atmosphere. The layer surrounding the earth's surface is the troposphere. At ground level, tropospheric, or “bad,” ozone is an air pollutant that damages human health, vegetation, and many common materials. Ozone is a key ingredient of urban smog. The troposphere extends to a level approximately 10 miles above ground level, where it meets the second layer, the stratosphere. The stratospheric, or “good,” ozone layer extends upward from approximately 10 to 30 miles and protects life on earth from the sun's harmful ultraviolet rays.

“Bad” ozone is what is known as a photochemical pollutant, which needs the combination of reactive organic gases (ROG) and oxides of nitrogen (NO_x), in the presence of sunlight to form. ROG and NO_x are emitted from various sources throughout Kern County. Significant ozone formation generally requires an adequate amount of precursors in the atmosphere and several hours in a stable atmosphere with strong sunlight. To reduce ozone concentrations, it is necessary to control the emissions of these ozone precursors.

Ozone is a regional air pollutant, which is generated over a large area and transported and spread by the wind. As the primary constituent of smog, ozone is the most complex, difficult to control, and pervasive of the criteria pollutants. Unlike other pollutants, it is not emitted directly into the air by specific sources but is created by sunlight acting on other air pollutants (the precursors), specifically NO_x and ROG. Sources of precursor gases number in the thousands and include common sources such as consumer products, gasoline vapors, chemical solvents, and combustion byproducts of various fuels. Originating from gas stations, motor vehicles, large industrial facilities, and small businesses such as bakeries and dry cleaners, the ozone-forming chemical reactions often take place in another location, catalyzed by sunlight and heat. Thus, high ozone concentrations can

form over large regions when emissions from motor vehicles and stationary sources are carried hundreds of miles from their origins.

Reactive Organic Gases and Volatile Organic Compounds

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROG and volatile organic compounds (VOCs), which include all hydrocarbons, except those exempted by CARB. Therefore, ROG are a set of organic gases based on state rules and regulations. VOCs are similar to ROG in that they include all organic gases, except those exempted by federal law. Both VOCs and ROG are emitted from the incomplete combustion of hydrocarbons or other carbon-based fuels. Combustion engine exhaust, oil refineries, and oil-fueled power plants are the primary sources of hydrocarbons. Another source of hydrocarbons is evaporation from petroleum fuels, solvents, dry cleaning solutions, and paint.

Carbon Monoxide

Mobile and stationary sources emit CO as a result of incomplete combustion of hydrocarbons or other carbon-based fuels. CO is an odorless, colorless, poisonous gas that is highly reactive. CO is a byproduct of motor vehicle exhaust, which contributes more than 66% of all CO emissions nationwide. In cities, automobile exhaust can cause as much as 95% of all CO emissions. These emissions can result in high concentrations of CO, particularly in local areas with heavy traffic congestion. Other sources of CO emissions include industrial processes and fuel combustion in sources such as boilers and incinerators. Despite an overall downward trend in concentrations and emissions of CO, some metropolitan areas still experience high levels of CO. High CO concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased CO emission rates at low air temperatures.

Oxides of Nitrogen

NO_x are a family of highly reactive gases that are a primary precursor to the formation of ground level ozone and react in the atmosphere to form acid rain. NO_x is emitted from solvents and combustion processes in which fuel is burned at high temperatures, principally motor vehicle exhaust and stationary sources such as electric utilities and industrial boilers. In terms of NO_x emissions, the two principal species of NO_x are nitric oxide (NO) and nitrogen dioxide (NO₂), with the vast majority (95%) of the NO_x emissions being comprised of NO. NO is converted to NO₂ by several processes, the two most important of these are: (1) the reaction of NO with ozone; and (2) the photochemical reaction of NO with hydrocarbons. A brownish gas, NO_x is a strong oxidizing agent that reacts in the air to form corrosive nitric acid as well as toxic organic nitrates.

Sulfur Dioxide

Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO₂ during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO₂ to sulfates takes place comparatively rapidly and completely in urban areas of California because of regional meteorological features.

SO₂ is a colorless, irritating gas with a “rotten egg” smell that is formed primarily by the combustion of sulfur-containing fossil fuels. Historically, SO₂ was a pollutant of concern in Kern County, but with the successful implementation of regulations, levels have been reduced significantly.

Particulate Matter (PM₁₀ and PM_{2.5})

Particulate matter (PM) pollution consists of very small liquid and solid particles floating in the air. Some particles are large and dark enough to be seen as soot or smoke. Others are so small they can be detected only with an electron microscope. PM is a mixture of materials that can include smoke, soot, dust, salt, acids, and metals. PM also forms when gases emitted from motor vehicles and industrial sources undergo chemical reactions in the atmosphere. PM or airborne dusts are the small particles that remain suspended in the air for long periods of time. Particulates of concern are those that are 10 microns or less in diameter (PM₁₀) and 2.5 microns or less in diameter (PM_{2.5}). Thus, PM_{2.5} is a subset of PM₁₀. PM₁₀ and PM_{2.5} are small enough to be inhaled, pass through the respiratory system and lodge in the lungs, possibly leading to adverse health effects.

The composition of PM₁₀ and PM_{2.5} can vary greatly with time, location, the sources of the material and meteorological conditions. Dust, sand, salt spray, metallic and mineral particles, pollen, smoke, mist, and acid fumes are the main components of PM₁₀ and PM_{2.5}. In addition to those listed previously, secondary particles can also be formed as precipitates from photochemical reactions of gaseous SO₂ and NO_x in the atmosphere to create sulfates (SO₄) and nitrates (NO₃), respectively. Secondary particles are of greatest concern during the winter months when low inversion layers tend to trap the precursors of secondary particulates.

In the western United States, there are sources of PM₁₀ in both urban and rural areas. PM₁₀ and PM_{2.5} are emitted from stationary and mobile sources, including diesel trucks and other motor vehicles; power plants; industrial processes; wood-burning stoves and fireplaces; wildfires; dust from roads, construction, landfills, and agriculture; and fugitive windblown dust. Because particles originate from a variety of sources, their chemical and physical compositions vary widely.

Lead

Lead is a metal that is a natural constituent of air, water, and the biosphere. Lead is neither created nor destroyed in the environment, so it essentially persists forever. Historically, lead was used to increase the octane rating in automobile fuel. However, because gasoline-powered automobile engines were a major source of airborne lead through the use of leaded fuels and that use has been mostly phased out, the ambient concentrations of lead have dropped dramatically.

Other Pollutants

Sulfates

Sulfates (SO_4^{2-}) are particulate product that comes from the combustion of sulfur-containing fossil fuels. When sulfur monoxide or SO_2 is exposed to oxygen, it precipitates out into sulfates (SO_3 or SO_4).

Sulfates are the fully oxidized ionic form of sulfur. Sulfates occur in combination with metal and/or hydrogen ions. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur. This sulfur is oxidized to SO_2 during the combustion process and subsequently converted to sulfate compounds in the atmosphere. The conversion of SO_2 to sulfates takes place comparatively rapidly and completely in urban areas of California because of regional meteorological features.

Hydrogen Sulfide

Hydrogen sulfide (H_2S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. H_2S in the atmosphere would likely oxidize into SO_2 that can lead to acid rain. At low concentrations H_2S , which has a characteristic “rotten egg” smell, may cause irritation to the eyes, mucous membranes and respiratory system, dizziness and headaches. In high concentrations (800 parts per million [ppm] can cause death) hydrogen sulfide is extremely hazardous, especially in enclosed spaces. Occupational Safety and Health Administration (OSHA) has the primary responsibility for regulating workplace exposure to H_2S .

Vinyl Chloride

Vinyl chloride monomer is a sweet-smelling, colorless gas at ambient temperature. Landfills, publicly owned treatment works, and polyvinyl chloride (PVC) production are the major identified sources of vinyl chloride emissions in California. PVC can be fabricated into several products, such as PVC pipes, pipe fittings, and plastics.

Toxic Air Contaminants

Hazardous air pollutants (HAPs) is a term used by the federal CAA that includes a variety of pollutants generated or emitted by industrial production activities. Called toxic air contaminants (TACs) under California law (see Health and Safety Code §§ 39650 et seq.), 10 pollutants have been identified through ambient air quality data as posing the most substantial health risk in California. Direct exposure to all of these pollutants has been shown to cause cancer, birth defects, damage to the brain and nervous system, and respiratory disorders. CARB provides emission inventories for TACs for only the larger air basins in the state. Emissions from the 10 TACs in the SJVAB 2023 Annual Report are presented in **Table 4.3-4**. This covers eight counties, San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the San Joaquin Valley Air Basin portion of Kern.

Table 4.3-4: 2023 Toxics Emissions Summary for the Eight Counties (tons per year)

Toxic Air Contaminant	Emissions (tons/year)
Acetaldehyde	3,512
Diesel particulate matter	2,520
Formaldehyde	2,318
Benzene	1,020
Perchloroethylene	448
1,3-Butadiene	269
Methylene chloride	247
Polyaromatic hydrocarbons	238
Manganese	217
Acrolein	153
p-Dichlorobenzene	130
Styrene	96
Trichloroethylene	46
Chromium	34
Lead	28
Nickel	18
Acrylonitrile	7
Vinyl Chloride	7
Arsenic	5
Cadmium	3
Mercury	2
Chloroform	2
Ethylene Oxide	0
Ethylene Dichloride	0
Beryllium	0
Carbon Tetrachloride	0
Dioxins/Benzofurans	0
Chromium, Hexavalent	0

Source: SJVAPCD 2024.

Sources include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. TACs do not have ambient air quality standards. Since no safe levels of TACs can be determined, there are no air quality standards for TACs. Instead, TAC impacts are evaluated by calculating the health risks associated with a given exposure. The requirements of the Air Toxic “Hot Spots” Information and Assessment Act apply to facilities that use, produce, or emit toxic chemicals. Facilities subject to the toxic emission inventory requirements of the Act must prepare and submit toxic emission inventory plans and reports to the ARB and periodically update those reports. While TACs do result in potential health risks for those exposed, the Project would not emit TACs except Diesel Particulate Matter (DPM), which, therefore, is the only TAC described further in this analysis.

Diesel Particulate Matter

DPM is emitted from both mobile and stationary sources. In California, on-road diesel-fueled engines contribute approximately 24% of the Statewide total, with an additional 71% attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources contribute about 5% of total DPM.

Health Effects and Risks of Criteria Pollutants

Ozone

While ozone in the upper atmosphere protects the earth from ultraviolet rays, high concentrations of ground-level ozone can adversely affect the human respiratory system. Many respiratory ailments, as well as cardiovascular diseases, are aggravated by exposure to high ozone levels.

Ozone is a powerful oxidant—it can be compared to household bleach, which can kill living cells (such as germs or human skin cells) upon contact. Ozone can damage the respiratory tract, causing inflammation and irritation, and it can induce symptoms such as coughing, chest tightness, shortness of breath, and worsening of asthmatic symptoms. Ozone in sufficient doses increases the permeability of lung cells, rendering them more susceptible to toxins and microorganisms. Exposure to ozone levels above the current ambient air quality standard leads to lung inflammation, lung tissue damage, and a reduction in the amount of air inhaled into the lungs. Health effects include potential increased susceptibility to respiratory infections and reduced ability to exercise. Health effects are more severe in people with asthma and other respiratory ailments. People who work or play outdoors are at a greater risk for harmful health effects from ozone. Children and adolescents are also at greater risk because they are more likely than adults to spend time engaged in vigorous activities. Research indicates that children under 12 years of age spend nearly twice as much time outdoors daily than adults. Teenagers spend at least twice as much time as adults in active sports and outdoor activities. Also, children inhale more air per pound of body weight than adults, and they breathe more rapidly than adults. Children are less likely than adults to notice their own symptoms and avoid harmful exposures. Elevated ozone concentrations also reduce crop and timber yields, damage native plants, and damage materials such as rubber, paints, fabric, and plastics (ARB and American Lung Association of California 2007).

Reactive Organic Gases and Volatile Organic Compounds

The primary health effects of hydrocarbons result from the formation of ozone and its related health effects (see the ozone health effects discussion above). High levels of hydrocarbons in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement. There are no separate federal or CAAQS for ROG. Carcinogenic forms of ROG are considered TACs. An example is benzene, which is a carcinogen. The health effects of individual ROG are described under the “Toxic Air Contaminants” heading below.

Carbon Monoxide

When inhaled, CO enters the bloodstream and binds more readily to hemoglobin, the oxygen-carrying protein in blood, than oxygen, thereby reducing the oxygen-carrying capacity of blood and reducing oxygen delivery to organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease. Healthy individuals are also affected but only at higher levels of exposure. Exposure to CO can cause chest pain in heart patients, headaches, and reduced mental alertness. At high concentrations, CO can cause heart difficulties in people with chronic diseases and can impair mental abilities. Exposure to elevated CO levels is associated with visual impairment, reduced work capacity, reduced manual dexterity, poor learning ability, difficulty performing complex tasks, and, with prolonged enclosed exposure, death.

The adverse health effects associated with exposure to ambient and indoor concentrations of CO are related to the concentration of carboxyhemoglobin in the blood. Exposure to elevated concentrations of CO weaken the heart's contractions and lowers the amount of oxygen carried by the blood. Health effects observed may include an early onset of cardiovascular disease; behavioral impairment; decreased exercise performance of young, healthy men; reduced birth weight; sudden infant death syndrome; and increased daily mortality rate (Fierro et al. 2001).

Oxides of Nitrogen

NO_x is an ozone precursor that combines with ROG to form ozone. See the ozone section above for a discussion of the health effects of ozone. Direct inhalation of NO_x can cause a wide range of health effects. Health effects of NO_x include lung irritation, lung damage, and lowered resistance to respiratory infections such as influenza. Short-term exposures (e.g., less than 3 hours) to low levels of NO₂ may lead to changes in airway responsiveness and lung function in individuals with pre-existing respiratory illnesses. These exposures may also increase respiratory illnesses in children. Long-term exposures to NO₂ may lead to increased susceptibility to respiratory infection and may cause irreversible lung damage. Other health effects associated with NO₂ are an increase in the incidence of chronic bronchitis and lung irritation. Chronic exposure to NO₂ may lead to eye and mucus membrane aggravation, along with pulmonary dysfunction. Clinical studies of human subjects suggest that NO₂ exposure to levels near the current standard may worsen the effect of allergens in allergic asthmatics, especially in children. Epidemiological studies have also shown associations between NO₂ concentrations and daily mortality from respiratory and cardiovascular causes as well as hospital admissions for respiratory conditions.

NO_x contributes to a wide range of environmental effects both directly and indirectly when combined with other precursors in acid rain and ozone. NO_x can cause fading of textile dyes and additives, deterioration of cotton and nylon, and corrosion of metals due to the production of particulate nitrates. Airborne NO_x can also impair visibility. Increased nitrogen inputs to terrestrial and wetland systems can lead to changes in plant species composition and diversity. Similarly, direct nitrogen inputs to aquatic ecosystems such as those found in estuarine and coastal waters can lead to eutrophication (a condition that promotes excessive algae growth, which can lead to a severe depletion of dissolved oxygen and increased levels of toxins harmful to aquatic life). Nitrogen, alone or in acid rain, also can acidify soils and surface waters. Acidification of soils causes the loss of essential plant nutrients and increased levels of soluble aluminum, which is toxic to plants.

Acidification of surface waters creates conditions of low pH and levels of aluminum that are toxic to fish and other aquatic organisms. NO_x also contributes to visibility impairment (CAPCOA 2019).

Sulfur Dioxide

High concentrations of SO₂ can result in temporary breathing impairment for asthmatic children and adults who are active outdoors. Health effects from exposure to emissions of SO₂ include aggravation of lung diseases, especially bronchitis, and constricting of breathing passages, especially in asthmatics and people involved in moderate to heavy exercise. Short-term exposures of individuals to elevated SO₂ levels during moderate activity may result in health effects including breathing difficulties that can be accompanied by symptoms such as wheezing, chest tightness, or shortness of breath. Other health effects that have been associated with longer-term exposures to high concentrations of SO₂, in conjunction with high levels of particulate matter, include aggravation of existing cardiovascular disease, respiratory illness, and alterations in the lungs' defenses. SO₂ also is a major precursor to particulate matter that is PM_{2.5}, which is a significant health concern and a main contributor to poor visibility.

SO₂ not only has a bad odor but can irritate the respiratory system. Exposure to high concentrations for short periods can constrict the bronchi and increase mucous flow, making breathing difficult. SO₂ can also irritate the lung and throat at concentrations greater than 6 ppm in many people; impair the respiratory system's defenses against foreign particles and bacteria when exposed to concentrations less than 6 ppm for longer periods; and enhance the harmful effects of ozone (combinations of the two gases at concentrations occasionally found in the ambient air appear to increase airway resistance to breathing).

SO₂ tends to have more toxic effects when acidic pollutants, liquid or solid aerosols, and particulates are also present. Effects are more pronounced among "mouth breathers" (e.g., people who are exercising or who have head colds). These effects include:

- Health problems, such as episodes of bronchitis requiring hospitalization associated with lower-level acid concentrations.
- Self-reported respiratory conditions, such as chronic cough and difficult breathing, associated with acid aerosol concentrations (individuals with asthma are especially susceptible to these effects. The elderly and those with chronic respiratory conditions may also be affected at lower concentrations than the general population).
- Increased respiratory tract infections associated with longer-term, lower-level exposures to SO₂ and acid aerosols.
- Subjective symptoms, such as headaches and nausea, in the absence of pathological abnormalities due to long-term exposure.

SO₂ easily injures many plant species and varieties, both native and cultivated. Some of the most sensitive plants include various commercially valuable pines, legumes, red and black oaks, white ash, alfalfa, and blackberry. The effects include:

- Visible injury to the most sensitive plants at exposures as low as 0.12 ppm for 8 hours.
- Visible injury to many other plant types of intermediate sensitivity at exposures of 0.30 ppm for eight hours.
- Positive benefits from low levels in a few species growing on sulfur-deficient soils.
- Increases in SO₂ concentrations accelerate the corrosion of metals, probably through the formation of acids. SO₂ is a major precursor to acidic deposition. Sulfur oxides may also damage stone and masonry, paint, various fibers, paper, leather, and electrical components.

Increased SO₂ also contributes to impaired visibility. Particulate sulfate, much of which is derived from SO₂ emissions, is a major component of the complex total suspended particulate mixture.

Particulate Matter (PM₁₀ and PM_{2.5})

The size of particles is directly linked to their potential for causing health problems. PM₁₀ and PM_{2.5} particles are small enough—about one-seventh the thickness of a human hair or smaller—to be inhaled and lodged in the deepest parts of the lung where they evade the respiratory system's natural defenses and can be trapped in the nose, throat, and upper respiratory tract. Health effects from exposure to PM₁₀ and PM_{2.5} begin as the body reacts to these foreign particles. Acute and chronic health effects associated with high particulate levels include the aggravation of chronic respiratory diseases; heart and lung disease; and coughing, bronchitis, and respiratory illnesses in children. Recent mortality studies have shown a statistically significant direct association between mortality and daily concentrations of particulate matter in the air. PM₁₀ and PM_{2.5} can aggravate respiratory disease and cause lung damage, cancer, and premature death. Sensitive populations, including children, the elderly, exercising adults, and those suffering from chronic lung disease such as asthma or bronchitis, are especially vulnerable to the effect of PM₁₀. Of greatest concern are recent studies that link PM₁₀ exposure to the premature death of people who already have heart and lung disease, especially the elderly. Acidic PM₁₀ can also damage man-made materials and is a major cause of reduced visibility in many parts of the United States. Non-health-related effects include reduced visibility and soiling of buildings.

Premature deaths linked to particulate matter are now at levels comparable to deaths from traffic accidents and secondhand smoke. One of the most dangerous pollutants, fine particulate matter (e.g., from diesel exhaust) not only bypasses the body's defense mechanisms and becomes embedded in the deepest recesses of the lung but also can disrupt cellular processes. Population-based studies in hundreds of cities in the United States and around the world have demonstrated a strong link between elevated particulate levels and premature deaths, hospital admissions, emergency room visits, and asthma attacks. Long-term studies of children's health conducted in California have demonstrated that particulate pollution may significantly reduce lung function growth in children (CARB and American Lung Association of California 2007).

A noteworthy study provides evidence that exposure to particulate air pollution is associated with lung cancer. This study found that residents who live in an area that is severely affected by particulate air pollution are at risk of developing lung cancer at a rate comparable to nonsmokers

exposed to secondhand smoke. This study also found approximately 16% excess risk of dying from lung cancer due to fine particulate air pollution (Dockery and Pope 2006).

Another study shows that individuals with existing cardiac disease can be in a potentially life-threatening situation when exposed to high levels of fine air pollution. Fine particles can penetrate the lungs and cause the heart to beat irregularly, or can cause inflammation, which could lead to a heart attack (Peters et al. 2001).

Attaining the California particulate matter standards would annually prevent about 6,500 premature deaths, or 3% of all deaths. These premature deaths shorten lives by an average of 14 years. This is roughly equivalent to the same number of deaths (4,200 to 7,400) linked to secondhand smoke in 2000. In comparison, motor vehicle crashes caused 3,200 deaths, and 2,000 deaths resulted from homicide. Attaining the California particulate matter and ozone standards would annually prevent 4,000 hospital admissions for respiratory disease, 3,000 hospital admissions for cardiovascular disease, and 2,000 asthma-related emergency room visits. Exposure to DPM causes about 250 excess cancer cases per year in California.

Lead

Exposure to lead occurs mainly through inhalation of air and ingestion of lead in food, water, soil, or dust. It accumulates in the blood, bones, and soft tissues and can adversely affect the kidneys, liver, nervous system, and other organs. Excessive exposure to lead may cause neurological impairments such as seizures, mental retardation, and behavioral disorders. Even at low doses, lead exposure is associated with damage to the nervous systems of fetuses and young children, resulting in learning deficits and lowered IQ. Recent studies also show that lead may be a factor in high blood pressure and subsequent heart disease. Lead can also be deposited on the leaves of plants, presenting a hazard to grazing animals and humans through ingestion (EPA 2022).

This highly toxic metal has been used for many years in everyday products and has been found to cause a range of health effects, from behavioral problems and learning disabilities, to seizures and death. Effects on the nervous systems of children are one of the primary health risk concerns from lead. In high concentrations, children can even suffer irreversible brain damage and death. Children six years old and under are most at risk because their bodies are growing quickly.

If not detected early, children with high levels of lead in their bodies can suffer from:

- Damage to the brain and nervous system
- Behavior and learning problems (such as hyperactivity)
- Slowed growth
- Hearing problems
- Headaches

Lead is also harmful to adults. Adults can suffer from:

- Difficulties during pregnancy
- Other reproductive problems (in both men and women)
- High blood pressure
- Digestive problems
- Nerve disorders
- Memory and concentration problems
- Muscle and joint pain

Since the 1980s, lead has been phased out in gasoline, reduced in drinking water, reduced in industrial air pollution, and banned or limited in consumer products.

Health Effects of Other Pollutants

Sulfates

ARB's sulfates standard is designed to prevent aggravation of respiratory symptoms. Effects of sulfate exposure at levels above the standard include a decrease in oxygen intake, aggravation of asthmatic symptoms, and an increased risk of cardiopulmonary disease. When acidic pollutants and particulates are also present, SO_2 tends to have an even more toxic effect. In addition to particulates, sulfates (SO_3 and SO_4) are also precursors to acid rain. SO_x and NO_x are the leading precursors to acid rain. Acid rain can lead to corrosion of man-made structures and cause acidification of water bodies. Sulfates are particularly effective in degrading visibility and, because they are usually acidic, can harm ecosystems and damage materials and property (CARB 2022).

The following is a general description of the source and health effects of other pollutants of concern, including other pollutants of H_2S , vinyl chloride, visibility-reducing particles, TACs, DPM, airborne fungus (Valley Fever), and asbestos.

Sulfates

Exposure to low concentrations of H_2S may irritate the eyes, nose, or throat. It may also cause difficulty in breathing for some asthmatics. Exposure to higher concentrations (above 100 ppm) can cause olfactory fatigue, respiratory paralysis, and death. Brief exposures to high concentrations of H_2S (greater than 500 ppm) can cause a loss of consciousness. In most cases, the person appears to regain consciousness without any other effects. However, in many individuals, there may be permanent or long-term effects such as headaches, poor attention span, poor memory, and poor motor function. No health effects have been found in humans exposed to typical environmental concentrations of H_2S (0.00011–0.00033 ppm). Deaths due to breathing in large amounts of H_2S have been reported in a variety of different work settings, including sewers, animal processing plants, waste dumps, sludge plants, oil and gas well drilling sites, and tanks and cesspools.

Vinyl Chloride

In humans, epidemiological studies of occupationally exposed workers have linked vinyl chloride exposure to development of liver angiosarcoma, which is a rare cancer, and have suggested a relationship between exposure cancers of the lung and brain. There are currently no adopted ambient air standards for vinyl chloride.

Short-term exposure to vinyl chloride has been linked with the following acute health effects: Acute exposure of humans to high levels of vinyl chloride via inhalation in humans has resulted in effects on the central nervous system, such as dizziness, drowsiness, headaches, and giddiness.

- Vinyl chloride is reported to be slightly irritating to the eyes and respiratory tract in humans. Acute exposure to extremely high levels of vinyl chloride has caused loss of consciousness; irritation to the lungs and kidneys; inhibition of blood clotting in humans; and cardiac arrhythmias in animals.
- Tests involving acute exposure of mice to vinyl chloride have shown high acute toxicity from inhalation exposure to the substance.

Long-term exposure to vinyl chloride concentrations has been linked with the following chronic health effects:

- Liver damage may result in humans from chronic exposure to vinyl chloride, through both inhalation and oral exposure.
- A small percentage of individuals occupationally exposed to high levels of vinyl chloride in air have developed a set of symptoms termed “vinyl chloride disease,” which is characterized by Raynaud’s phenomenon (fingers blanch and numbness and discomfort are experienced upon exposure to the cold), changes in the bones at the end of the fingers, joint and muscle pain, and scleroderma-like skin changes (thickening of the skin, decreased elasticity, and slight edema).
- Central nervous system effects (including dizziness, drowsiness, fatigue, headache, visual and/or hearing disturbances, memory loss, and sleep disturbances) as well as peripheral nervous system symptoms (peripheral neuropathy, tingling, numbness, weakness, and pain in fingers) have also been reported in workers exposed to vinyl chloride.

Several reproductive/developmental health effects from vinyl chloride exposure have been identified:

- Several case reports suggest that male sexual performance may be affected by vinyl chloride. However, these studies are limited by a lack of quantitative exposure information and possible co-occurring exposure to other chemicals.
- Several epidemiological studies have reported an association between vinyl chloride exposure in pregnant women and an increased incidence of birth defects, while other studies have not reported similar findings.

- Epidemiological studies have suggested an association between men occupationally exposed to vinyl chloride and miscarriages during their wives' pregnancies, although other studies have not supported these findings.
- Long-term exposure to vinyl chloride has also been identified as a cancer risk. Inhaled vinyl chloride has been shown to increase the risk of a rare form of liver cancer (angiosarcoma of the liver) in humans. Animal studies have shown that vinyl chloride, via inhalation, increases the incidence of angiosarcoma of the liver and cancer of the liver.

Diesel Exhaust

Diesel exhaust and many individual substances contained in it (including arsenic, benzene, formaldehyde, and nickel) have the potential to contribute to mutations in cells that can lead to cancer. Long-term exposure to diesel exhaust particles poses the highest cancer risk of any TAC evaluated by the California Office of Environmental Health Hazard Assessment (OEHHA). ARB estimates that approximately 70% of the cancer risk that the average Californian faces from breathing TACs stems from diesel exhaust particles (ARB 2000).

In its comprehensive assessment of diesel exhaust, OEHHA analyzed more than 30 studies of people who worked around diesel equipment, including truck drivers, railroad workers, and equipment operators. The studies showed these workers were more likely to develop lung cancer than workers who were not exposed to diesel emissions. These studies provide strong evidence that long-term occupational exposure to diesel exhaust increases the risk of lung cancer. Using information from OEHHA's assessment, ARB estimates that diesel-particle levels measured in California's air in 2000 could cause 540 "excess" cancers (beyond what would occur if there were no diesel particles in the air) in a population of one million people over a 70-year lifetime. Other researchers and scientific organizations, including the National Institute for Occupational Safety and Health, have calculated similar cancer risks from diesel exhaust as those calculated by OEHHA and ARB.

Exposure to diesel exhaust can have immediate health effects. Diesel exhaust can irritate the eyes, nose, throat, and lungs, and it can cause coughs, headaches, lightheadedness, and nausea. In studies with human volunteers, diesel exhaust particles made people with allergies more susceptible to the materials to which they are allergic, such as dust and pollen. Exposure to diesel exhaust also causes inflammation in the lungs, which may aggravate chronic respiratory symptoms and increase the frequency or intensity of asthma attacks (OEHHA 2002).

Other Health Effects

Visibility-Reducing Particles

Visibility-reducing particles are a measure of visibility. The ARB does not yet have a measurement method that is accurate or precise enough to designate areas in the state as being in attainment or nonattainment. Visibility-reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. Except for Lake County (which is designated to be in

attainment), California's attainment status with respect to visibility-reducing particles is currently designated as unclassified.

Airborne Fungus (Valley Fever)

Coccidioidomycosis, commonly referred to as San Joaquin Valley Fever or Valley Fever, is one of the most studied and oldest known fungal infections. Valley Fever most commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top few inches of soil and the existence of the fungus in most soil areas is temporary. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus "blooms" and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne. Agricultural workers, construction workers, and other people who work outdoors and who are exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust are also more likely to contract Valley Fever. After the fungal spores have settled in the lungs, they change into a multicellular structure called a spherule. Fungal growth in the lungs occurs as the spherule grows and bursts, releasing endospores, which then develop into more spherules.

Approximately 60% of Valley Fever cases are mild and display flu-like symptoms or no symptoms at all. Of those who are exposed and seek medical treatment, the most common symptoms include fatigue, cough, loss of appetite, rash, headache, and joint aches. In some cases, painful red bumps may develop on the skin. One important fact to mention is that these symptoms are not unique to Valley Fever and may be caused by other illnesses as well. Identifying and confirming this disease require specific laboratory tests such as: (1) microscopic identification of the fungal spherules in infected tissue, sputum or body fluid sample; (2) growing a culture of CI from a tissue specimen, sputum, or body fluid; (3) detection of antibodies (serological tests specifically for Valley Fever) against the fungus in blood serum or other body fluids; and (4) administering the Valley Fever Skin Test (called coccidioidin or spherulin), which indicate prior exposure to the fungus (VFCE). **Table 4.3-5** presents the various infection classifications and normal diagnostic spread of Valley Fever cases.

Table 4.3-5: Range of Valley Fever Cases

Infection Classification	Percent of Total Diagnosed Cases
Asymptomatic infections	60
Infections that resolve spontaneously (with lifelong immunity)	35
Chronic disease or disease disseminated throughout the body	Up to 5
Meningeal infection (affecting brain and/or spinal cord and requiring lifetime treatment)	0.15–0.75

Source: Hector 2005

Factors that affect the susceptibility to coccidioidal dissemination are race, sex, pregnancy, age and immunosuppression. According to data gathered by Kern County Public Health Services Department, Hispanic and Latino Americans are 3.4 times more likely than whites to develop

coccidioidal dissemination, African Americans are 13.7 times more likely, and Filipinos are 175.5 times more likely. Regarding the number of deaths attributed to the disease, compared to whites, the number of Hispanic/Latino is five times greater, African Americans, 23.3 times greater and Filipinos, 191.4 times greater. In addition, residents new to the San Joaquin Valley are at a higher risk of infection due primarily to low immunity to this particular fungus (KCPHS 2014).

Valley Fever is not contagious; therefore, it cannot be passed on from person to person. Most of those who are infected would recover without treatment within six months and would have life-long immunity to the fungal spores. In severe cases, especially in those patients with rapid and extensive primary illness, those who are at risk for dissemination of disease, and those who have disseminated disease, antifungal drug therapy is used. The type of medication used, and the duration of drug therapy are determined by the severity of the disease and response to the therapy. The medications used include ketoconazole, itraconazole, and fluconazole in chronic, mild to moderate disease, and amphotericin B, given intravenously or inserted into the spinal fluid, for rapidly progressive disease. Although these treatments are often helpful, evidence of disease may persist, and years of treatment may be required (VFCE).

Asbestos

Asbestos is a term used for several types of naturally occurring fibrous minerals found in many parts of California. The three most common types of asbestos are chrysotile, amosite, and crocidolite. Chrysotile, also known as white asbestos, is the most common type of asbestos found in buildings. Chrysotile makes up approximately 90 to 95% of all asbestos contained in buildings in the United States. In addition, naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be released to the atmosphere due to vehicular traffic on unpaved roads, during grading for development projects, and at quarry operations. Serpentinite and/or ultramafic rocks are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties associated with the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. According to information provided by the California Department of Conservation, Division of Mines and Geology, the Project site is not in an area where naturally occurring asbestos is likely to be present (California DOC 2000).

Coronavirus Disease 2019

Coronavirus Disease 2019 (COVID-19) is a new disease, caused by a novel (or new) human coronavirus that has not previously been seen in humans. The first known case of COVID-19 was confirmed in the United States on January 20, 2020 (Holshue et al. 2020). There are many types of human coronaviruses, including some that commonly cause mild upper respiratory tract illnesses. COVID-19 is a respiratory illness that can spread from person to person. According to the Centers for Disease Control (CDC), older adults and people who have severe underlying medical conditions like heart or lung disease or diabetes seem to be at higher risk for developing more serious complications from COVID-19 illness. Symptoms may appear 2 to 14 days after the exposure to the virus and may include, but are not limited to: fever or chills, cough, shortness of breath or

difficulty breathing, fatigue, muscle or body aches, headache, loss of taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea.

According to the CDC, COVID-19 is believed to spread between people who are in close contact with one another (within about 6 feet) through respiratory droplets produced when an infected person coughs, sneezes, or talks. COVID-19 research and causality is still in the beginning stages. A nationwide study by Harvard University found a linkage between long-term exposure to PM_{2.5} (averaged from 2000 to 2016) as air pollution and statistically significant increased risk of COVID-19 death in the United States (Harvard 2020).

Odors

Typically, odors are generally regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from the psychological (e.g., irritation, anger, or anxiety) to the physiological (e.g., circulatory and respiratory effects, nausea, vomiting, headache). The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell very minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. People may have different reactions to the same odor and an odor that is offensive to one person may be perfectly acceptable to another (e.g., fast food restaurant). It is important to also note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word strong to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

Neither the state nor the federal governments have adopted rules or regulations for the control of odor sources. The SJVAPCD does not have an individual rule or regulation that specifically addresses odors; however, odors would be subject to the SJVAPCD's Rule 4102, Nuisance. Any actions related to odors would be based on citizen complaints to local governments and the SJVAPCD.

4.3.3 Regulatory Setting

In California, air quality is regulated by several agencies, including the EPA, CARB, and local air districts such as the SJVAPCD. Each agency develops rules and/or regulations to attain the goals or directives imposed upon them through legislation. Although the EPA regulations may not be superseded, some State and local regulations may be more stringent than federal regulations. The Project site is within the SJVAB, which is under the jurisdiction of the SJVAPCD. The SJVAPCD has developed CEQA guidance for assessing air quality impacts. In addition, Kern County has its own CEQA Guidelines for assessing air quality impacts.

Federal

United States Environmental Protection Agency

The principal air quality regulatory mechanism on the federal level is the CAA and, in particular, the 1990 amendments to the CAA, and the NAAQS that it establishes. These standards identify levels of air quality for “criteria” pollutants that are considered the maximum levels of ambient (background) air pollutants considered safe, with an adequate margin of safety, to protect public health and welfare. The criteria pollutants include ozone, CO, NO₂ (which is a form of NO_x), SO₂ (which is a form of SO_x), PM₁₀, PM_{2.5}, and lead. The EPA also has regulatory and enforcement jurisdiction over emission sources beyond state waters (outer continental shelf), and those that are under the exclusive authority of the federal government, such as aircraft, locomotives, and interstate trucking. The EPA’s primary role at the state level is to oversee the state air quality programs. The EPA sets federal vehicle and stationary source emission standards and oversees approval of all State Implementation Plans (SIP), as well as providing research and guidance in air pollution programs. The SIP is a State-level document that identifies all air pollution control programs within California that are designed to meet the NAAQS.

Toxic Substances Control Act

The Toxic Substances Control Act first authorized the EPA to regulate asbestos in schools, public, and commercial buildings under Title II of the law, which is also known as the Asbestos Hazard Emergency Response Act (AHERA). AHERA requires local education agencies to inspect their schools for asbestos-containing building materials (ACBMs) and to prepare management plans to reduce the hazards posed by asbestos hazard. The Act also established a program for the training and accreditation of individuals performing certain types of asbestos work.

National Emission Standards for Hazardous Air Pollutants

Pursuant to the FCAA of 1970, the EPA established the National Emission Standards for Hazardous Air Pollutants (NESHAPs). These are technology-based source-specific regulations that limit allowable emissions of HAPs. Among these sources are ACBMs. NESHAPs include requirements pertaining to the inspection, notification, handling, and disposal of ACBMs associated with the demolition and renovation of structures.

State

California Air Resources Board

CARB, a department of the California Environmental Protection Agency, oversees air quality planning and control throughout California by administering the SIP. Its primary responsibility lies in ensuring implementation of the 1989 California Clean Air Act, responding to the federal CAA requirements, and regulating emissions from motor vehicles sold in California. It also sets fuel specifications to further reduce vehicular emissions.

CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO₄, visibility, H₂S, and vinyl chloride (C₂H₃Cl). However, at this time, H₂S and C₂H₃Cl are not measured at any monitoring stations in the SJVAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS.

CARB also has on-road and off-road engine emission reduction programs that indirectly affect the Project's emissions through the phasing in of cleaner on-road and off-road equipment engines. Additionally, CARB has a Portable Equipment Registration Program that allows owners or operators of portable engines and associated equipment to register their units under a statewide portable program to operate their equipment that must meet specified program emission requirements throughout California without having to obtain individual permits from local air districts.

The State has also enacted an Airborne Toxic Control Measure (ATCM) for the reduction of DPM and criteria pollutant emissions from in-use, off-road, diesel-fueled vehicles (California Code of Regulations [CCR] Title 13, Article 4.8, Chapter 9, Section 2449). This regulation provides target emission rates for PM and NO_x emissions from owners of fleets of diesel-fueled off-road vehicles and applies to equipment fleets of three specific sizes and the target emission rates are reduced over time (CARB 2007).

Title V and Extreme Designation

Title V of the CAA, as amended in 1990, creates an operating permit program for certain defined sources. In general, owner/operators of defined industrial or commercial sources that emit more than 25 tons per year of NO_x and ROG must process a Title V permit. In "Extreme Designation" areas, the definition of a major source which requires Title V permitting, changes from 25 tons per year to 10 tons per year. This change results in more businesses complying with Title V permitting requirements under the Extreme nonattainment designation.

Title V does not impose any new air pollution standards, require the installation of any new controls on the affected facilities, or require reductions in emissions. Title V does enhance public and EPA participation in the permitting process and requires additional record keeping and reporting by businesses, which results in significant administrative requirements.

California Code of Regulations

The CCR is the official compilation and publication of regulations adopted, amended, or repealed by the state agencies pursuant to the Administrative Procedure Act. The CCR includes regulations that pertain to air quality emissions. Specifically, Section 2485 in Title 13 of the CCR states that the idling of all diesel-fueled commercial vehicles (weighing over 10,000 pounds) during construction shall be limited to five minutes at any location. In addition, Section 93115 in Title 17 of the CCR states that operations of any stationary, diesel-fueled, compression-ignition engines shall meet specified fuel and fuel additive requirements and emissions standards.

CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went into effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated regularly, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The California Energy Commission anticipates the 2022 energy code will provide \$1.5 billion in consumer benefits and reduce greenhouse gas (GHG) emissions by 10 million metric tons. The Project would be required to comply with the California Green Building Standards Code (CALGreen) in place at the time plan check submittals are made. These require, among other items:

NONRESIDENTIAL MANDATORY MEASURES

- Short-term bicycle parking. If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack (5.106.4.1.1).
- Long-term bicycle parking. For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility (5.106.4.1.2).
- EV charging stations. New construction shall facilitate the future installation of EV supply equipment. The compliance requires empty raceways for future conduit and documentation that the electrical system has adequate capacity for the future load. The number of spaces to be provided for is contained in Table 5.106. 5.3.3 (5.106.5.3). Additionally, Table 5.106.5.4.1 specifies requirements for the installation of raceway conduit and panel power requirements for medium- and heavy-duty EV supply equipment for warehouses, grocery stores, and retail stores.
- Outdoor light pollution reduction. Outdoor lighting systems shall be designed to meet the backlight, uplight and glare ratings per Table 5.106.8 (5.106.8).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).

- Excavated soil and land clearing debris. 100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed (5.408.3).
- Recycling by Occupants. Provide readily accessible areas that serve the entire building and are identified for the depositing, storage, and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (5.410.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
 - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1).
 - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
 - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combined flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
 - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).
- Outdoor potable water uses in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (5.304.1).
- Water meters. Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is projected to consume more than 1,000 gallons per day (GPD) (5.303.1.1 and 5.303.1.2).
 - Outdoor water uses in rehabilitated landscape projects equal or greater than 2,500 sf. Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit (5.304.3).

- Commissioning. For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements (5.410.2).

California Air Resources Board On-Road and Off-Road Vehicle Rules

In 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling to reduce public exposure to diesel PM and other TACs (Title 13 California Code of Regulations [CCR], Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given time.

In 2008 CARB approved the Truck and Bus regulation to reduce NO_x, PM₁₀, and PM_{2.5} emissions from existing diesel vehicles operating in California (13 CCR, Section 2025). The requirements were amended to apply to nearly all diesel-fueled trucks and buses with a gross vehicle weight rating (GVWR) greater than 14,000 pounds. For the largest trucks in the fleet, those with a GVWR greater than 26,000 pounds, there are two methods to comply with the requirements. The first method is for the fleet owner to retrofit or replace engines, starting with the oldest engine model year, to meet 2010 engine standards, or better. This is phased over 8 years, starting in 2015 and would be fully implemented by 2023, meaning that all trucks operating in the state subject to this option would meet or exceed the 2010 engine emission standards for NO_x, PM₁₀, and PM_{2.5} by 2023. The second method, if chosen, required fleet owners, starting in 2012, to retrofit a portion of their fleet with diesel particulate filters achieving at least 85% removal efficiency, with installation of diesel particulate filters) for their entire fleet by January 1, 2016. However, diesel particulate filters do not typically lower NO_x emissions. Thus, fleet owners choosing the second option had until 2020 to comply with the 2010 engine emission standards for their trucks and buses.

In addition to limiting exhaust from idling trucks, CARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation adopted by the CARB on July 26, 2007, aims to reduce emissions by the installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emission-controlled models (13 CCR, Section 2449). Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with the largest fleets to begin compliance in 2014, medium fleets in 2017, and small fleets in 2019. Each fleet must demonstrate compliance through one of two methods. The first option is to calculate and maintain fleet average emissions targets, which encourages the retirement or repowering of older equipment and rewards the introduction of newer cleaner units into the fleet. The second option is to meet the Best Available Control Technology (BACT) requirements by turning over or installing Verified Diesel Emission Control Strategies) on a certain percentage of its total fleet horsepower. The compliance schedule requires that BACT turn overs or retrofits (Verified Diesel Emission Control Strategies installation) be fully implemented by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

Toxic Air Contaminants

The California Air Toxics Program was established in 1983, when the California Legislature adopted Assembly Bill (AB) 1807 to establish a two-step process of risk identification and risk management to address potential health effects from exposure to toxic substances in the air. In the risk identification step, CARB and OEHHA determine if a substance should be formally identified, or “listed”, as a TAC in California. Inception of the program, a number of such substances have been listed (<https://ww2.arb.ca.gov/resources/documents/carb-identified-toxicair-contaminants>). In 1993, the California Legislature amended the program to identify the 189 federal HAPs as TACs.

In the risk management step, CARB reviews emission sources of an identified TAC to determine whether regulatory action is needed to reduce risk. Based on the results of that review, CARB has promulgated a number of ATCMs, both for mobile and stationary sources. As discussed above, in 2004, CARB adopted an ATCM to limit heavy-duty diesel motor vehicle idling to reduce public exposure to diesel particulate matter and other TACs. The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given time.

In addition to limiting exhaust from idling trucks, as discussed above, CARB promulgated emission standards for off-road diesel construction equipment such as bulldozers, loaders, backhoes, and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation, adopted by CARB on July 26, 2007, aims to reduce emissions by the installation of diesel particulate filters and encouraging the replacement of older, dirtier engines with newer emission-controlled models. Reduction over time will occur as implementation is staggered based on fleet size, with the largest operators beginning compliance in 2014 with full implementation by 2023 for large and medium fleets and 2028 for small fleets.

The AB 1807 program is supplemented by the AB 2588 Air Toxics “Hot Spots” program, which was established by the California Legislature in 1987. Under this program, facilities are required to report their air toxics emissions, assess health risks, and notify nearby residents and workers of significant risks if present. In 1992, the AB 2588 program was amended by Senate Bill (SB) 1731 to require facilities that pose a significant health risk to the community to reduce their risk through implementation of a risk management plan.

California State Implementation Plan

The CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The EPA has the responsibility to review all State Implementation Plans to determine if they conform to the requirements of the CAA. State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to

CARB for review and approval. CARB then forwards SIP revisions to the EPA for approval and publication in the Federal Register.

Local

Metropolitan Bakersfield General Plan (MBGP) (Unincorporated Planning Area)

The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan (MBGP) for air quality applicable to the Project are provided below. The MBGP identifies the federal, State, and local statutes, ordinances, or policies that govern the conservation of air quality that must be considered by Kern County during the decision-making process for any project that could impact air quality. The MBGP contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the Project. Therefore, although they are not listed below, all policies, goals, and implementation measures in the MBGP are incorporated by reference.

Chapter 5. Conservation/Air Quality

Goal

Goal 1. Promote air quality that is compatible with health, well-being, and enjoyment of life by controlling point sources and minimizing vehicular trips to reduce air pollutants.

Goal 2. Continue working toward attainment of Federal, State and Local standards as enforced by the San Joaquin Valley Unified Air Pollution Control District.

Goal 3. Reduce the amount of vehicular emissions in the Planning Area.

Policies

Policy 1. Comply with and promote San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) control measures regarding Reactive Organic Gases (ROG). Such measures are focused on: (a) steam driven well vents, (b) Pseudo-cyclic wells, (c) natural gas processing plant fugitives, (d) heavy oil test signs, (e) light oil production fugitives, (f) refinery pumps and compressors, and (g) vehicle inspection and maintenance.

Policy 2. Encourage land uses and land use practices which do not contribute significantly to air quality degradation.

Policy 3. Require dust abatement measures during significant grading and construction operations.

Policy 5. Consider the location of sensitive receptors such as schools, hospitals, and housing developments when locating industrial uses to minimize the impact of industrial sources of air pollution.

Policy 7. Participate in regional air quality studies and comprehensive programs for air pollution reduction.

Policy 10. Implement the Transportation System Management Program (July 1984) for Metropolitan Bakersfield to improve traffic flow, reduce vehicle trips and increase street capacity.

Policy 11. Improve the capacity of the existing road system through improved signalization, more right turn lanes and traffic control systems.

Policy 12. Encourage the use of mass transit, carpooling and other transportation options to reduce vehicle miles traveled.

Policy 13. Consider establishing priority parking areas for carpoolers in projects with relatively large numbers of employees to reduce vehicle miles traveled and improve air quality.

Policy 14. Establish Park and ride facilities to encourage carpooling and the use of mass transit.

Policy 15. Promote the use of bicycles by providing attractive bicycle paths and requiring provision of storage facilities in commercial and industrial projects.

Policy 18. Encourage walking for short distance trips through the creation of pedestrian friendly sidewalks and street crossings.

Policy 19. Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services to minimize vehicular travel (I-1).

Policy 22. Require the provision of secure, convenient bike storage racks at shopping centers, office buildings, and other places of employment in the Bakersfield Metropolitan area.

Policy 23. Encourage the provision of shower and locker facilities by employers, for employees who bicycle or jog to work.

Policy 25. Require design of parking structures and ramps to provide adequate off-street storage for entering vehicles to minimize on-street congestion and to avoid internal backup and idling of vehicles.

Policy 29. Encourage the use of alternative fuel and low or zero-carbon emission vehicles.

In 2006, Kern County Planning Department issued its own *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports*. The document provides specific guidance for County-prepared EIRs, including air quality issues to be considered, analytical approaches and resources, and a cumulative impact analysis methodology. In general, Kern County defers to SJVAPCD on issues related to assessing air quality impacts (e.g., modeling, odors, risk assessment). In addition, Kern County recommends an assessment of visibility impacts for all industrial projects and any other projects that have components that could generate dust or emissions related to visibility. Kern County also recommends including a list of projects located within a 1-mile and 6-mile radius of the Project boundary.

San Joaquin Valley Air Pollution Control District

State law assigns much of the authority to regulate stationary, indirect, and area sources to local air pollution control and air quality management districts. The SJVAPCD has primary responsibility for regulating stationary sources of air pollution situated within its jurisdictional boundaries. To this end, the SJVAPCD implements air quality programs required by State and federal mandates, enforces rules and regulations based on air pollution laws, and educates businesses and residents about their role in protecting air quality. The SJVAPCD is responsible for regulating stationary, indirect, and area sources of air pollution in the SJVAB. The eight counties that comprise the SJVAPCD are divided into three regions: the Northern Region (Merced, San Joaquin, and Stanislaus counties), Central Region (Madera, Fresno, and Kings Counties), and Southern Region (Tulare County and San Joaquin Valley portion of Kern County).

The SJVAPCD has developed the following plans to attain and maintain the State and federal standards:

- The 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standard.
- The 2016 Plan for the 2008 8-hr Ozone Standard.
- The 2013 Plan for the Revoked 1-hour Ozone Standard.
- The 2004 Revisions to the Carbon Monoxide Maintenance Plan.

SJVAPCD Rules and Regulations

The SJVAPCD rules and regulations that may apply during or at buildout of the Project include, but are not limited to the following:

- **Rule 2010 (Permits Required).** Requires any person constructing, altering, replacing, or operating any source operation which emits, may emit, or may reduce emissions to obtain an Authority to Construct (ATC) or a Permit to Operate (PTO).
- **Rule 2092 (Standards for Permits to Operate).** Defines the conditions that must be met for an APCO to issue a PTO.
- **Rule 2201 (New and Modified Stationary Source Review Rule).** Provides for the review of new and modified Stationary Sources of air pollution and to provide mechanisms including emission offsets by which Authorities to Construct such sources may be granted, without interfering with the attainment or maintenance of Ambient Air Quality Standards; and ensure that no net increase in emissions above specified thresholds from new and modified Stationary Sources of all nonattainment pollutants and their precursors occur.
- **Rule 4001 (New Source Performance Standards).** Applies to all new sources of air pollution and modifications of existing sources of air pollution within the source categories for which EPA has adopted standards. Section 4.0, Requirements, of Rule 4001 lists all of the provisions of 40 CFR Part 60 that are incorporated into the NSPS.

- **Rule 4102 (Nuisance).** Applies to any source operation that emits or may emit air contaminants or other materials. In the event that the Project or construction of the Project creates a public nuisance, it could be in violation and be subject to SJVAPCD enforcement action.
- **Rule 4201 (Particulate Matter Concentration).** Sets a standard maximum of 0.1 grain per cubic foot of gas at dry standard conditions for PM emissions. This rule applies to any source operation that emits dust, fumes, or total suspended PM.
- **Rule 4202 (Particulate Matter – Emission Rate).** Establishes allowable emissions rates for PM. This rule requires any source operation that may emit PM emissions to meet the standards set forth in the table “Allowable Emission Rate Base on Process Weight Rate.”
- **Rule 4601–Architectural Coatings.** Limits volatile organic compound emissions from architectural coatings.
- **Rule 4641–Cutback, Slow Cure, and Emulsified Asphalt Paving and Maintenance Operations.** Limits VOC emissions by restricting the application and manufacturing of certain types of asphalt for paving and maintenance operations.
- **Rule 4702–Internal Combustion Engines.** This rule applies to any internal combustion engine rated at 25 brake horsepower or greater. Emergency generators cannot be used to reduce the demand for electrical power when normal electrical power line service has not failed, to produce power for the utility electrical distribution system, or in conjunction with a voluntary utility demand reduction program or interruptible power contract. The rule limits emergency generators to 100 hours of operation for non-emergency usage, which is less stringent than the Airborne Toxic control Measures (ATCM) for emergency standby stationary engines under 17 California Code of Regulations Section 93115. Therefore, compliance with the ATCM ensures compliance with the 100-hour requirement.
- **Rule 4703– Stationary Gas Turbines.** This rule limits the emissions of nitrogen oxides (NO_x), emissions from stationary gas turbine systems and with ratings equal to or greater than 0.3 megawatt (MW) or a maximum heat input rating of more than 3,000,000 Btu per hour which are subject to District permitting requirements.

Regulation VIII–Fugitive PM10 Prohibitions

Rules 8011–8081 are designed to reduce PM₁₀ emissions (predominantly dust/dirt) generated by human activity, including construction and demolition, road construction, bulk materials storage, use of paved and unpaved roads, and carryout and trackout. Among the Regulation VIII rules applicable to the Project are the following:

- **Rule 8011 (General Requirements).** The purpose of this rule is to reduce ambient concentration of fine particulate matter (PM₁₀) by requiring actions to prevent, reduce or mitigate anthropogenic (human-caused) fugitive dust emissions.
- **Rule 8021 (Construction, Demolition Excavation, Extraction, and Other Earthmoving Activities).** Limits fugitive dust emissions from construction, demolition, excavation, extraction, and other earthmoving activities and applies to any construction,

demolition, excavation, extraction, and other earthmoving activities, including, but not limited to, land clearing, grubbing, scraping, travel on site, and travel on access roads to and from the site.

- **Rule 8031(Bulk Materials).** Limits fugitive dust emissions from the outdoor handling, storage, and transport of bulk materials.
- **Rule 8041 (Carryout and Trackout).** Prevents or limits fugitive dust emissions from carryout and trackout and applies to all sites that are subject to any of the following rules where carryout or trackout has occurred or may occur on paved public roads or the paved shoulders of a paved public road.
- **Rule 8051 (Open Areas).** Limits fugitive dust emissions from open areas and applies to any open area having 0.5 acre or more within urban areas, or 3.0 acres or more within rural areas; and contains at least 1,000 square feet of disturbed surface area.
- **Rule 8061 (Paved and Unpaved Roads).** Limits fugitive dust emissions from paved and unpaved roads by implementing control measures and design criteria.
- **Rule 8071 (Unpaved Vehicle/Equipment Traffic Areas).** Limits fugitive dust emissions from unpaved vehicle and equipment traffic areas.
- **Rule 9410–Employer Based Trip Reduction.** The purpose of Rule 9410 is to reduce emissions of ozone precursors (NO_x and VOC) and particulate matter from mobile sources. The rule applies to employers with at least 100 eligible employees at a worksite and requires employers to establish an Employer Trip Reduction Implementation Plan (eTRIP) to encourage employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. Rule 9410 (Employer Based Trip Reduction) satisfies a federally enforceable commitment in District SIPs (the 2007 Ozone Plan and the 2008 PM_{2.5} Plan) and is designed to share the air pollution cleanup burden traditionally targeted at stationary sources. The rule applies to apply to worksites with over 100 employees in incorporated cities with a population of at least 10,000 people OR worksites where at least 50 percent of all employees work at least 2,040 hours per year.
- **Rule 9510 (Indirect Source Review).** Indirect sources are land uses that attract or generate motor vehicles trips. Indirect source emissions contain many pollutants, principally PM₁₀, ROG, and NO_x. The San Joaquin Valley Air Pollution Control District (SJVAPCD) first implemented this requirement in the adopted 2003 PM₁₀ Plan to develop and implement an Indirect Source Rule (ISR) by July 2004, with implementation to begin in 2005. Senate Bill 709 (SB 709) as required the SJVAPCD to adopt by regulation a schedule of fees to be assessed on areawide and indirect sources of emissions. After public hearings, the Air District adopted Rule 9510 on December 15, 2005, and it became effective in 2006. This rule was amended on December 21, 2017, and the amendments came into effect on March 21, 2018.

The purpose of Rule 9510 is to reduce emissions of NO_x and PM₁₀ from new development projects. The District determined that reducing one precursor NO_x, would reduce the cumulative impact on ozone from new development to less than significant levels. Sufficient ROG was obtained from

other control measures to enable the District to predict attainment without additional ROG controls. The rule applies to development projects that seek to gain discretionary approval for projects that, upon full buildout, will include any one of the following: 50 residential units; 2,000 square feet of commercial space; 25,000 square feet of light industrial space; 20,000 square feet of medical or recreational space; 39,000 square feet of general office space; 100,000 square feet of heavy industrial space; 9,000 square feet of educational space; 10,000 square feet of government space; or 9,000 square feet of any land use not identified above. Several sources are exempt from the rule, including transportation projects, transit projects, reconstruction projects that result from a natural disaster, and development projects whose primary source of emissions are subject to district Rules 2201 and 2010, which address stationary sources. Any development project that has a mitigated baseline of less than 2 tons per year for each NO_x and PM_{10} is exempted from the mitigation requirements of the rule as well as Oil and Gas activities (which involve development projects on facilities whose primary functions are subject to Rule 2201 [New and Modified Stationary Source Review Rule] or Rule 2010 [Permits Required]). Developers are encouraged to reduce as much air pollution as possible through on-site mitigation or incorporating air-friendly designs and practices into the Project. Some examples include bike paths and sidewalks, traditional street design; medium- to high-density residential developments; locating near bus stops and bike paths; locating near different land use zones, such as commercial; and increasing energy efficiency. If these practices do not completely meet the required reductions, then under the rule, new development projects are required to mitigate the remainder of their emissions by contributing to a mitigation fund that would be used to pay for the most cost-effective projects to reduce emissions. Examples of such projects include the retirement and crushing of gross polluting cars, replacement of older diesel engines, and diesel-powered vehicles and programs that would encourage the replacement of gas-powered lawnmowers with electric lawnmowers.

The ISR requires developers to reduce 20% of construction-exhaust NO_x , 45% of construction-exhaust PM_{10} , 33% of operational NO_x over 10 years, and 50% of operational PM_{10} over 10 years. The District estimates that the potential reductions from this program in 2010 at 11.5 tons per day, or 4,197.5 tons per year, of PM_{10} and 4.1 tons per day, or 1,496.5 tons per year, of NO_x .

Indirect Source Mitigation Fee

Indirect sources are land uses that attract or generate motor vehicles trips. Indirect source emissions contain many pollutants, principally PM_{10} , ROG, and NO_x . The SJVAPCD included a requirement in the adopted 2003 PM_{10} Plan to develop and implement an ISR rule by July 2004, with implementation to begin in 2005. The ISR rule went into effect in March 2006. SB 709 required the SJVAPCD to adopt by regulation a schedule of fees to be assessed on area-wide and indirect sources of emissions. After public hearings, the SJVAPCD adopted Rule 9510 on December 15, 2005.

The purpose of Rule 9510 is to reduce emissions of NO_x and PM_{10} from new development projects. Developers are encouraged to reduce as much air pollution as possible through on-site mitigation or the incorporation of air-friendly designs and practices into the Project. Some examples include bike paths and sidewalks; traditional street design; medium- to high-density residential developments; locating near bus stops and bike paths; locating near different land use zones; and

increasing energy efficiency. If these practices do not completely meet the required reductions (under the rule), new development projects are required to mitigate the remainder of their emissions by contributing to a mitigation fund that would be used to pay for the most cost-effective projects to reduce emissions. Examples include projects to retire or crush polluting cars, replace older diesel engines, and replace gas-powered lawnmowers with electric lawnmowers.

The ISR requires developers to reduce 20% of construction exhaust NO_x, 45% of construction exhaust PM₁₀; 33% of operational NO_x over 10 years; and 50% of operational PM₁₀ over 10 years.

Naturally Occurring Asbestos

Asbestos Dust Mitigation Plan

Asbestos Dust Mitigation Plan is required for grading/construction projects that involve the disturbance of asbestos-containing soil in areas greater than 1 acre. Please note, that this is different from the SJVAPCD's Dust Control Plan that is implemented as part of Regulation VIII.

Rule 4002: NESHAPS Asbestos Regulation

This rule requires that the subject facilities be inspected for asbestos prior to remodeling. Regulated asbestos-containing materials must be removed prior to remodeling work. Furthermore, a demolition permit release is required prior to obtaining a building department demolition permit.

Emission Reduction Agreements

The implementation, as mitigation, of a Development Mitigation Agreement (DMA) or Voluntary Emission Reduction Agreement (VERA) to reduce criteria pollutants of NO_x, ROG, and PM net incremental emissions generated by a project has been incorporated into development projects in Kern County since 2008. They are not a "voluntary" agreement with the SJVAPCD but are mandated by enforceable mitigation measures and are, therefore, called DMAs. The emission reductions required by a DMA are implemented within the SJVAB in quantities sufficient to fully mitigate the Project's air quality impacts such that development of the Project could be considered to result in no net increase in the designated criteria pollutant emissions over the criteria pollutant emissions that would otherwise exist without the development of the Project, all to be verified by the SJVAPCD. Thus, the DMA results in greater reductions than would otherwise occur under the District's Indirect Source Review (ISR), since the ISR does not require ROG reductions and the ISR only requires a percentage of reductions rather than full reductions of NO_x and PM resulting from project construction and operations. When adopting the ISR and the subsequent VERA/DMA programs, the District acknowledges that as ROG is a precursor to ozone, the reductions are not required in the ISR. In the VERA/DMA, the reductions are achieved by increasing the NO_x and PM tonnage for project levels (Appendix B.4). As the actual amount of ROG reductions achieved from NO_x and PM reductions is not absolutely certain, project emissions are still considered significant and unavoidable; however, all feasible and reasonable mitigation has been required to reduce criteria pollutants as close to "no net increase" as scientifically possible. This approach has been found legally sufficient by court rulings in the following cases: *California Building Industry Assn. v. San Joaquin Valley APCD*, Fresno County Case No. 06 CECG 02100 DS13; *National Association of Home Builders v. San Joaquin Valley Air Pollution Control District*; Federal District

Court, Eastern District of California, Case No. 1:07-CV-00820-LJO-DLB; and *Center for Biological Diversity et al. v Kern County*, Fifth Appellate District, Case No. F061908.

4.3.4 Impacts and Mitigation Measures

This section describes the impact analysis relating to air quality for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to conclude whether an impact would be significant. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the SJVAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

Methodology

Methodologies used to conduct the evaluation of air quality impacts for the Project, including guidelines for preparing environmental documents were developed considering the CEQA significance criteria developed by the local air quality district in the Project area, which is the SJVAPCD, approved CEQA air quality checklists, and considering other federal criteria. The findings in the *Airport Drive Warehouse Air Quality Impact Analysis*, were prepared for the Project (Appendix B.1), in accordance with the Kern County Planning Department's *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* and SJVAPCD's *2015 Guidance for Assessing and Mitigation Air Quality Impacts* documents, were used to assess the Project's impacts related to air quality.

Air Quality Plan Consistency

As a component of the cumulative impact analysis, the Kern County Planning Department's Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports states that the following should be included in the consistency determination for existing air quality plans:

- Discuss the Project in relation to the Kern County Council of Governments conformity and traffic analysis zones.
- Quantify the emissions from similar projects in the Ozone Attainment Plan for the applicable basin. Discuss the Ozone Attainment Plan for the applicable air district, development, and relation to the regional basin, Triennial Plan, and SIP.

Pollutant Emissions Modeling

Impacts were quantitatively assessed using the following:

- Construction equipment horsepower, load factors, and emission factors from the *California Emissions Estimator Model* (CalEEMod) model, version 2022.1.1.21.

- Vehicle emission factors, as incorporated from EMFAC 2021 (EMFAC is short for emission factor) into the CalEEMod model, version 2022.1.1.21.
- Fugitive dust emission factors for grading and paved road travel were calculated using the CalEEMod model. This analysis assumes that earthwork activities are expected to balance, and no import or export of soils would be required. Particulate matter control for construction earth moving activities is based on water a watering schedule, three times a day for construction dust control.

Refer to Appendix B.1 for details on the equipment fleet, hours of operation, vehicle miles traveled and other assumptions used in the CalEEMod model for emission calculations.

Existing Site Emissions

As previously discussed, the Project site is currently vacant. Thus, there are no existing site emissions.

Short-term Construction-Generated Emissions

Short-term construction emissions associated with the Project include emissions associated with site preparation, grading, building construction, paving, the operation of off-road equipment, on-road worker vehicle trips, and vehicle travel on paved and unpaved surfaces and fugitive dust from material handling activities. Emissions associated with haul-truck trips were not included as earthwork activities are expected to balance, and no import or export of soils will be required.

Construction Modeling Assumptions

Construction equipment information was provided by the Project applicant and supplemented with default CalEEMod equipment lists for the Project's land use type and development intensity for each phase. Construction emissions were estimated under the assumption that construction commenced in January 2024. The dates entered into the CalEEMod program represent worst-case emissions as construction equipment technology and emissions improve over time; therefore, all estimated emission totals are conservative and reflect a reasonable and legally sufficient estimate of potential impacts. All construction equipment assumed activity levels of up to a total of 8 hours per day for each piece of equipment. Additionally, vendor trips were assumed for site prep, grading, and paving phases based on the length of the phase.

The Project construction was modeled in CalEEMod assuming 738,500 square feet of Unrefrigerated Warehouse-No Rail space and 184,600 square feet of Refrigerated Warehouse-No Rail land space. Additionally, the User Defined Industrial land use was used to separately model emissions that would occur as a result of Project truck trips. Passenger vehicle truck trips, as well as all other emission sources, were modeled under the Unrefrigerated Warehouse-No Rail and Refrigerated Warehouse-No Rail land uses.

Long-Term Operational Emissions Assumptions

CalEEMod, version 2022.1.1.21 was used to estimate emissions of criteria pollutants (i.e., NO_x, ROG, PM₁₀, PM_{2.5}, SO_x, and CO) associated with long-term operation of the Project. During long-term operation of the Project, emissions would be associated with onsite energy use, motor vehicle operations, and onsite equipment operations. To a lesser extent, emissions would also be generated by on-site area sources including the occasional application of architectural coatings, landscape maintenance, and use of consumer products. Onsite emissions associated with area sources were based on default parameters recommended in CalEEMod. Electrical energy source emissions were excluded from the evaluation due to the location of electrical generating facilities for the Project area being either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the SJVAB. Electricity and natural gas usage associated with the Project were calculated by CalEEMod using default parameters.

Mobile Source Emissions

The Project-related emissions were calculated primarily from 1,430 daily vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed land use. Trip characteristics, outlined in the *Airport Drive Warehouse Traffic Impact Analysis* (Appendix B.1) were utilized for this analysis.

To determine emissions from passenger car vehicles, CalEEMod defaults were utilized for trip length and trip purpose for the proposed uses. For the proposed industrial uses, it is important to note that although the *Airport Drive Warehouse Traffic Impact Analysis* does not breakdown passenger cars by type, this analysis assumes that passenger cars include light-duty-auto vehicle, light-duty-truck, medium-duty-vehicle, and motorcycle vehicle types. To account for emissions generated by passenger cars, the fleet mix provided in **Table 4.3-6** was used for this analysis.

Table 4.3-6: Passenger Car Fleet Mix

Land Use	Percent of Vehicle Type				
	LDA	LDT1	LDT2	MDV	MCY
High Cube Transload Warehouse	48.64%	4.22%	23.22%	21.60%	2.31%
High Cube Cold Storage Warehouse					

Note: The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types.

Key: LDA = ; LDT1 and LDT2 = Light-Duty-Trucks; LDV = Light-Duty-Auto Vehicle; MCY = Motorcycles; MDV = Medium-Duty-Vehicles

Vehicle trip lengths for off-site truck trips were based on an average travel distance of 65 miles/one-way trip and an assumption of 100% primary trips. This truck trip length was calculated based on survey data derived from Fresno Council of Government's Report for San Joaquin Valley I-5/SR-99 Good Movement Corridor Study, prepared by Cambridge Systematics, Inc. June 30, 2017, to account for truck travel that would occur within the San Joaquin Valley Air Basin. Passenger vehicle trip lengths are based on CalEEMod model defaults. To account for emissions generated by trucks, the fleet mix provided in **Table 4.3-7** was used for this analysis.

Table 4.3-7: Truck Fleet Mix

Land Use	% Vehicle Type			
	LHDT1	LHDT2	MHDT	HHDT
High Cube Transload Warehouse	13.52%	4.27%	16.44%	65.77%
High Cube Cold Storage Warehouse				

Note: Project-specific truck fleet mix is based on the number of trips generated by each truck type (LHDT1, LHDT2, MHDT, and HHDT) relative to the total number of truck trips. The truck fleet mix is based on the mix of 2-, 3-, and 4-axle trucks presented in the Project traffic study.

Key: LDA = LDT12 and LDT23 = Light-Duty-Trucks; LDV = Light-Duty-Auto Vehicle; MCY = Motorcycles; MDV = Medium-Duty-Vehicles

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of brake and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod.

Stationary Source Emissions

The Project was conservatively assumed to include the installation of two 300 horsepower diesel-powered emergency generators/fire pumps. The emergency generators/fire pumps were estimated to operate for up to 1 hour per day, one day per week for up to 50 hours per year for maintenance and testing purposes. Emissions associated with the two stationary emergency diesel-powered emergency generators/fire pumps were calculated using CalEEMod.

On-Site Cargo Handling Equipment Source Emissions

It is common for industrial buildings to require the operation of cargo handling equipment in the building's truck court areas. Onsite modeled operational equipment includes up to two 175 horsepower, natural gas-powered cargo handling equipment – port tractor operating 4 hours a day or 365 days of the year. Emissions attributed to cargo handling equipment represent a worst-case scenario as the Project expects the equipment to be electric. Based on Table II-3, Port and Rail Cargo Handling Equipment Demographics by Type, from CARB's Technology Assessment: Mobile Cargo Handling Equipment document, a single piece of equipment could operate up to 2 hours per day (Total Average Annual Activity divided by Total Number Pieces of Equipment). As such, the analysis conservatively assumes that the tractor/loader/backhoe would operate up to 4 hours per day.

Transport Refrigeration Unit Emissions

In order to account for the possibility of refrigerated uses, trucks associated with the cold-storage land use are assumed to also have Transport Refrigeration Units (TRUs). Therefore, for modeling purposes, 51 one-way truck trips have the potential to include TRUs. TRUs are accounted for during on-site and off-site travel. The TRU calculations are based on the EMFAC Offroad Emissions, developed by CARB. EMFAC does not provide emission rates per hour or mile as with the on-road emission model and only provides emission inventories. Emission results are produced in tons per day while all activity, fuel consumption and horsepower hours were reported at annual levels. The emission inventory is based on specific assumptions including the average horsepower rating of specific types of equipment and the hours of operation annually. These assumptions are not always consistent with assumptions used in the modeling of project level emissions. Therefore, the emissions inventory was converted into emission rates to accurately calculate emissions from TRU operation associated with project level details. This was accomplished by converting the annual horsepower hours to daily operational characteristics and converting the daily emission levels into hourly emission rates based on the total emission of each criteria pollutant by equipment type and the average daily hours of operation.

Microturbine Emissions

The Project was assumed to include two natural gas-powered microturbines rated to provide 1,000 kilowatts of electrical output each. Other than operation for maintenance and testing purposes (up to 50 hours per year each), the microturbines would be operated for emergency use only. Emissions were calculated based on emission factors obtained from the EPA's AP-42, Chapter 3.1.

Health Risk Assessment

The SJVAPCD guidelines state that if a Project is expected to generate/attract heavy-duty diesel trucks, which emit DPM, preparation of a mobile source HRA is recommended. This document serves to meet the SJVAPCD's recommendation for preparation of an HRA. The mobile source HRA has been prepared in accordance with the relevant documentation available including SJVAPCD's *Guidance for Assessing and Mitigating Air Quality Impacts* and *Guidance for Air Dispersion Modeling*.

A Health Risk Assessment (HRA) associated with construction emissions was prepared and follows the methodologies prescribed in the California EPA/OEHHA Air Toxics Hot Spots Program Risk Assessment Guidelines – *Guidance Manual for Preparation of Health Risk Assessments* (OEHHA 2015), which was adopted in 2015 replacing the previous 2003 guidance manual. Similarly, an HRA associated with operational emissions was also performed for operational DPM emissions using the American Meteorological Society/EPA regulatory dispersion model (AERMOD), Version 23132. HRA assumptions and results are provided in Appendix B.1.

This HRA is based on applicable guidelines to produce conservative estimates of human health risk posed by exposure to DPM. The conservative nature of this analysis is due primarily to the following factors:

- The ARB-adopted diesel exhaust unit risk factor (URF) of 300 in 1 million per microgram per cubic meter ($\mu\text{g}/\text{m}^3$) is based upon the upper 95th percentile of estimated risk for each of the epidemiological studies utilized to develop the URF. Using the 95th percentile URF represents a very conservative (health-protective) risk posed by DPM because it represents breathing rates that are high for the human body.
- The emissions derived assume that every truck accessing the Project site will idle for 15 minutes under the unmitigated scenario, an overestimation of actual idling times and thus conservative. The CARB's anti-idling requirements impose a 5-minute maximum idling time and therefore the analysis conservatively overestimates DPM emissions from idling by a factor of 3.

The SJVAPCD has established an incidence rate of 20 persons per million as the maximum acceptable incremental cancer risk due to DPM exposure from a project. The approach to estimating cancer risk from long-term inhalation exposure to carcinogens requires calculating a range of potential doses and multiplying by cancer potency factors in units of inverse dose to obtain a range of cancer risks. For cancer risk, the risk for each age group is calculated using the appropriate breathing rates, age sensitivity factors, exposure duration, and cancer risks calculated for individual age groups are summed to estimate cancer risk based on assumed exposure durations.

Non-carcinogenic risk is expressed as a hazard index, which is quantified by comparing the exposure to the reference level via a ratio (i.e., the exposure divided by the appropriate chronic or acute value). Exposures below the reference level (a hazard index of 1.0) are not likely to be associated with any adverse health effects and are considered to be less than significant.

Ambient Air Quality Analysis

Based on thresholds established in SJVAPCD's GAMAQI (SJVAPCD 2015), project-related impacts on air quality may be significant when on-site emissions from construction or operational activities exceed the screening threshold of 100 pounds per day. Should Project on-site construction or operational emissions exceed this threshold, it is recommended that an ambient air quality analysis be performed. Because on-site emissions generated as a result of construction or operation of the Project would not exceed this screening threshold, the Project would not cause or contribute to a violation of the CAAQS, and preparation of an ambient air quality analysis is not required.

Carbon Monoxide Hotspots

Heavy traffic congestion can contribute to high levels of CO. Individuals exposed to these CO "hot spots" may have a greater likelihood of developing adverse health effects. The potential for the Project to result in localized CO impacts at intersections resulting from addition of its traffic volumes is assessed based on Kern County's suggested criteria.

Visibility Impacts

The County guidance states that potential impacts to visibility should be evaluated for all industrial projects and any other projects, such as mining projects, which have components that could generate dust or emissions related to visibility. Based on the Kern County guidelines, a visibility

analysis is not required since the Project is not a large industrial stationary source or mining project, and it would not have long-term operational components that could generate substantial dust or emission plumes related to visibility.

Valley Fever Exposure

While there are no specific thresholds for the evaluation of potential *Coccidioides immitis* (Valley Fever) exposure, the potential for workers or area residents contracting Valley Fever as a result of the Project is evaluated based on the anticipated earth-moving activities and considers measures such as the development and implementation of a dust control plan to help control the release of the *Coccidioides immitis* fungus during construction activities.

Asbestos

There are no quantitative thresholds related to receptor exposure to asbestos.

Coronavirus Disease 2019

There are no definitive quantitative thresholds related to receptor exposure to COVID-19, and the relationship to exposure to PM_{2.5}.

Thresholds of Significance

Kern County

The Kern County CEQA Implementation Document and Kern County Environmental Checklist includes items taken from previous versions of *CEQA Guidelines* Appendix G. However, Appendix G was updated in 2018, resulting in minor changes to the checklist items. The analysis herein is based on the updated *CEQA Guidelines*, which differ slightly from the Kern County CEQA Implementation Document and Kern County Environmental Checklist.

The current *CEQA Guidelines* state that a project could have a significant adverse effect on air quality if it would:

- a) Conflict with or obstruct implementation of the applicable air quality plan.
- b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard.

Specifically, would implementation of the project exceed any of the following adopted thresholds:

- i. SJVAPCD:
Operational and Area Sources:
 - 10 tons per year for ROG
 - 10 tons per year for NO_x
 - 15 tons per year for PM₁₀

Stationary Sources as Determined by District Rules

- Severe Nonattainment: 25 tons per year
 - Extreme Nonattainment: 10 tons per year
- a) Expose sensitive receptors to substantial pollutant concentrations.
 - b) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

San Joaquin Valley Air Pollution Control District

The SJVAPCD adopted thresholds of significance in the 2015 *Guidance for Assessing and Mitigating Air Quality Impacts* (GAMAQI; SJVAPCD 2015). Section 8.4.2 of the GAMAQI provides that project-related impacts on air quality may be significant when on-site emission increases from construction activities or operational activities exceed the 100 pounds per day screening level of any criteria pollutant after implementation of all enforceable mitigation measures. Under such circumstances, the SJVAPCD recommends that an ambient air quality analysis be performed to determine if emission increases from a project will cause or contribute to a violation of the ambient air quality standards based on the significance thresholds as follows:

- Construction and Operational (permitted and non-permitted equipment and activities) emissions.
 - 10 tons per year for ROG
 - 10 tons per year for NO_x
 - 100 tons per year for CO
 - 27 tons per year for SO_x
 - 15 tons per year for PM₁₀
 - 15 tons per year for PM_{2.5}

SJVAPCD's 2015 *Guidance for Assessing and Mitigation Air Quality Impacts* provides thresholds for analysis of health risk impacts from project operation, both permitted and non-permitted sources combined. The following are the significance thresholds for toxic air contaminants:

- Carcinogens: Maximally exposed individual risk equals or exceeds 20 in 1 million.
- Non-Carcinogens, Acute: Hazard Index equals or exceeds one for the maximally exposed individual.
- Non-Carcinogens, Chronic: Hazard Index equals or exceeds one for the maximally exposed individual.

Project Impacts

Impact 4.3-1: The project would conflict with or obstruct implementation of the applicable air quality plan.

In general, a project would not interfere with the applicable air quality plan if it were consistent with growth assumptions used to form the applicable air quality plan and if the Project implements all reasonably available and feasible air quality control measures. The consistency with the Air Quality Management Plan (AQMP) is discussed below for construction and operation.

Air quality impacts are controlled through policies and provisions of the SJVAPCD, the MBGP, and the Kern County Code of Building Regulations. The California Clean Air Act requires air pollution control districts with severe or extreme air quality problems to provide for a 5% reduction in nonattainment emissions per year. The Attainment Plans prepared for the SJVAPCD comply with this requirement. The CARB reviewers approve or amend the document and forward the plan to the EPA for final review and approval within the SIP.

Required Evaluation Guidelines

CEQA *Guidelines* and the CAA (Sections 176 and 316) contain specific references regarding the need to evaluate consistencies between the Project and the applicable AQAP for the projects. To accomplish this, the ARB has developed a three-step approach to determine project conformity with the applicable AQAP:

1. *Determination that an AQAP is being implemented in the area where the project is being proposed.*

The Project is in Kern County, within the jurisdiction of the SJVAPCD. The SJVAPCD has implemented the current AQAP, as approved by CARB.

2. *The project must be consistent with the growth assumptions of the applicable AQAP.*

The unincorporated MBGP designates the Project site for Light Industrial land uses. The Industrial Development category refers to a variety of industrial uses, including those that are more specialized in nature and require special consideration in terms of use of the property as well as impacts on adjacent properties, according to the MBGP. The Project Applicant proposes land uses that are consistent with development anticipated under the site's existing General Plan land use designation and zoning. Therefore, the Project would conform to local land use plans, and the Project is considered to be consistent with the growth assumptions of the applicable AQAP.

3. *The project must contain in its design all reasonably available and feasible air quality control measures.*

The Project would be required to comply with all applicable SJVAPCD Rules and Regulations, including, but not limited to, Rule 4102 (Nuisance) and Regulation VIII (Fugitive PM10 Prohibitions). **Mitigation Measure MM 4.1-3** (see *Section 4.1, Aesthetics*, for full mitigation measure text) would require the installation of a vegetative barrier along Airport Drive and Boughton Drive project frontage, which can contribute to Emission Reductions that are calculable

through tools developed by CARB for the California Natural Resources Agency (CRNA) Urban Greening Grant Program under the California Climate Investments Program (SJVAPCD 2022). In addition, **Mitigation Measure MM 4.3-1** would require the Project to comply with any and all applicable SJVAPCD rules and regulations including Rule 9510 (ISR Rule), which requires projects to reduce NOx emissions by 20% and Rule 8021 (Construction, Demolition, Excavation, Extraction, and other earth-moving activities), which requires the control of dust emissions during earth moving activities, such as grading. **Mitigation Measure MM 4.3-2** would require preparation of a Dust Control Plan and **Mitigation Measure MM 4.3-3** would require the IPG Kern County 52 Holdings, LLC (Project proponent) and its contractors to comply with various measures that would result in all vehicles and construction equipment meeting CARB engine emission standards. **Mitigation Measure MM 4.3-4** would require a reduced demand on gas-powered landscape maintenance equipment and require all landscaping along major and arterial roadways be designed with native drought-resistant species (plants, trees, and bushes). **Mitigation Measure MM 4.3-5** would require the Project owner/operator to enter into a DMA with the SJVAPCD. Implementation of these measure will reduce emissions during construction and operation of the Project.

The Project does include two stationary emergency fire pump sources, and two natural gas-powered microturbines. Both emission sources are assumed to operate for emergency purposes only with maintenance and testing of up to 50 hours per year each making them exempt from emission requirements in the SJVAPCD's 2022 Ozone Plan. Additionally, permitting for the fire pumps and microturbines would not require SJVAPCD permits under Rule 4702 and Rule 4703, respectively but would require Emission Control Plans be submitted to the district (SJVAPCD 2004b).

The Project's proposed land use designation for the subject site is consistent with the land use designation discussed in the General Plan and is thus consistent with the growth assumptions of the applicable AQAP. Furthermore, the Project would be required to comply with all applicable SJVAPCD Rules and Regulations and would implement operational mitigation designed to reduce emissions. As such, the Project is considered to be consistent with the AQAP.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.1-3** (See *Section 4.1, Aesthetics*, for full mitigation text) **MM 4.3-1** through **MM 4.3-5** would be required.

MM 4.3-1 The project shall continuously comply with applicable rules and regulations set forth by the San Joaquin Valley Air Pollution Control District.

MM 4.3-2 Prior to issuance of grading permits, the project proponent shall provide to the Kern County Planning and Natural Resources Department a site-specific Dust Control Plan approved by the San Joaquin Valley Air Pollution Control District (SJVAPCD). The Dust Control Plan shall include name(s), address(es), and phone number(s) of person(s) responsible for the preparation, submission, and implementation of the plan; a description and location of operation(s); and a listing of all fugitive dust emission sources. The site-specific Dust Control Plan shall take

into consideration grading and construction schedule, seasonal winds, site-specific wind patterns, and soil conditions to ensure adequate measures are implemented to manage fugitive dust. The following shall be included where applicable and feasible and is not to be considered all-inclusive; and any other measures to reduce fugitive dust emissions not listed shall be encouraged:

- a. Land Preparation, Excavation and/or Demolition. The following dust control measures shall be implemented:
 1. Identify a comprehensive grading schedule for the entire project site. When feasible, grading activities shall be phased and minimized to those areas necessary for project access and installation of project features.
 2. All onsite unpaved roads and offsite unpaved access roads shall be stabilized using water or chemical soil stabilizers that can be determined to be as efficient as or more efficient for fugitive dust control than California Air Resources Board approved soil stabilizers, and that shall not increase any other environmental impacts including loss of vegetation.
 3. All soil excavated or graded shall be sufficiently watered to prevent excessive dust. Watering shall occur as needed with complete coverage of disturbed soil areas. Watering shall take place a minimum of twice daily on unpaved/untreated roads and on disturbed soil areas with active operations.
 4. All clearing, grading, earth moving, and excavation activities shall cease during periods of winds greater than 20 miles per hour (averaged over one hour), if disturbed material is easily windblown, or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property.
 5. Stockpiles of dirt or other fine loose material shall be stabilized by watering or other appropriate method to prevent windblown fugitive dust.
 6. Where acceptable to the Kern County Fire Department, weed control shall be accomplished by mowing instead of disking, thereby, leaving the ground undisturbed and with a mulch covering.
- b. Site Construction. After clearing, grading, earth moving and/or excavating is completed within any portion of the project sites, the following dust control practices shall be implemented:
 1. Once initial leveling has ceased, all temporality open and inactive soil areas within the construction site shall be (1) seeded and watered until plant growth is evident, (2) treated with a dust palliative, or (3) watered twice daily until soil has sufficiently crusted to prevent fugitive dust emissions.

2. Dependent on specific site conditions (season and wind conditions), revegetation shall occur in those areas so planned as soon as practical after installation of the solar panels. A native seed mix of grass and flowers shall also be added to the spread topsoil to enhance regrowth.
 3. All active disturbed soil areas shall be sufficiently watered at least twice daily or have dust palliatives applied to prevent excessive dust.
- c. Vehicular Activities. During all phases of construction, the following vehicular control measures shall be implemented:
1. On-site vehicle speed shall be limited to 15 miles per hour on unpaved roads.
 2. All areas with vehicle traffic shall be paved, treated with dust palliatives or watered a minimum of twice daily.
 3. Streets adjacent to the project sites shall be kept clean, and project-related accumulated silt shall be removed.
 4. Access to the project sites shall be by means of an apron into the project sites from adjoining surfaced roadways. The aprons shall be surfaced or treated with dust palliatives. If operating on soils that cling to the wheels of vehicles, a grizzly, wheel washer, or other such device shall be used on the road exiting the project sites, immediately prior to the pavement, in order to remove most of the soil material from vehicle tires.
 5. Track-out debris onto public paved roads shall not extend 50 feet or more from an active operation and track-out shall be removed or isolated such as behind a locked gate at the conclusion of each workday, except on agricultural fields where speeds are limited to 15 mph.
 6. All hauling materials should be moist while being loaded into dump trucks.
 7. Drop heights when loaders dump soil into trucks shall not exceed 5 feet above the truck.
 8. Soil loads should be kept below 6 inches or the freeboard of the truck.
 9. All haul trucks hauling fine material (soil, sand, other loose material) off-site on public roads shall be either sufficiently watered or securely covered to prevent excessive dust.
 10. Gate seals should be tight on dump trucks.

- MM 4.3-3** The project proponent and/or its contractors shall continuously implement the following measures during construction and operation of the project to control emissions from the on-site equipment:
- a. All equipment shall be maintained in accordance with the manufacturer's specifications.
 - b. All equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for more than five (5) minutes.
 - c. Construction equipment shall not operate longer than eight (8) cumulative hours per day without prior written authorization provided by the Kern County Planning and Natural Resources Department.
 - d. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOx emissions.
 - e. On-road and off-road diesel equipment shall use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines.
 - f. All on-site off-road equipment and on-road vehicles shall meet the recent California Air Resources Board engine emission standards or alternatively fueled equipment, such as compressed natural gas, liquified natural gas, or electric, as appropriate.
 - g. Tier 4 engines shall be used on all equipment when available.
- MM 4.3-4** To reduce demand for gas-powered landscape maintenance equipment, all required landscaping along major and arterial roadways will be designed with native drought-resistant species (plants, trees, and bushes).
- MM 4.3-5** Prior to the issuance of grading permits, the Owner/Operator shall enter into a Developer Mitigation Agreement (DMA) (synonymous with a Voluntary Emissions Reduction Agreement) with the San Joaquin Valley Air Pollution Control District. The DMA is to fully mitigate construction and operations criteria air emissions of project implementation for project vehicle and other mobile source emissions. The Owner/Operator shall pay fees to fully mitigate project emissions of NOx (oxides of nitrogen), ROG (reactive organic gases), PM₁₀ (particulate matter of 10 microns or less in diameter), and PM_{2.5} (particulate matter of 2.5 microns or less in diameter) (collectively referred to as "designated criteria emissions") to avoid any net increase in these pollutants. The air quality mitigation fee shall be paid prior to the approval of any construction or grading approval or payment plan as designated by the San Joaquin Valley Air Pollution Control District.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.1-3** (See *Section 4.1, Aesthetics*, for full mitigation text) and **MM 4.3-1** through **MM 4.3-5**, impacts would be less than significant after mitigation.

Impact 4.3-2: The project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable federal or state ambient air quality standard. Specifically, implementation of the project would exceed any of the following adopted thresholds:

- a. SJVAPCD
 - a. Operational and Area Sources:
 - 10 tons per year for ROG
 - 10 tons per year for NO_x
 - 15 tons per year for PM₁₀
 - b. Stationary Sources as Determined by District Rules
 - Severe Nonattainment: 25 tons per year
 - Extreme Nonattainment: 10 tons per year

San Joaquin Valley Air Pollution Control District

The SJVAPCD adopted thresholds of significance in the 2015 Guidance for Assessing and Mitigating Air Quality Impacts (GAMAQI) (SJVAPCD 2015). Section 8.4.2 of the GAMAQI provides that project-related impacts on air quality may be significant when on-site emission increases from construction activities or operational activities exceed the 100 pounds per day screening level of any criteria pollutant after implementation of all enforceable mitigation measures. Under such circumstances, the SJVAPCD recommends that an ambient air quality analysis be performed to determine whether emission increases from a project will cause or contribute to a violation of the CAAQS based on the significance thresholds as follows:

- Construction and Operational (permitted and non-permitted equipment and activities) emissions;
 - 10 tons per year for ROG
 - 10 tons per year for NO_x
 - 100 tons per year for CO
 - 27 tons per year for SO_x
 - 15 tons per year for PM₁₀

- 15 tons per year for PM_{2.5}

Regional Emissions

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the Project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the Project.

The primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. Ozone is a secondary pollutant that can be formed miles from the source of emissions, through reactions of ROG and NO_x emissions in the presence of sunlight. Emissions of ROG and NO_x are termed ozone precursors. The SJVAB often exceeds the State and national ozone standards. Therefore, if the Project emits a substantial quantity of ozone precursors, the Project may contribute to an exceedance of the ozone standard. The SJVAB also exceeds air quality standards for PM₁₀ and PM_{2.5}; therefore, substantial project emissions may contribute to an exceedance for these pollutants.

The Project does not contain sources that would produce substantial quantities of SO₂ emissions during construction and operation.

Construction Emissions

For purposes of analysis, construction of the Project was expected to commence in January 2024 and last through December 2025. The construction schedule utilized in the analysis represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent. The proposed construction schedule and equipment assignments are presented in Appendix B.1.

Table 4.3-8 shows that criteria pollutant emissions would not exceed any of the SJVAPCD's regional thresholds of significance during the unmitigated construction of the Project. It should be noted that unmitigated construction emissions incorporate the basic dust control measures required under SJVAPCD Rule 8201, which necessitates that vehicle speeds on unpaved roads and surfaces be reduced to no more than 15 miles per hour and exposed construction areas are watered during earthmoving activities.

Table 4.3-8: Unmitigated Construction Air Pollutant Emissions Summary

Year	Emissions (tons/year)					
	VOC	NO _x	CO	SO _x	PM10	PM2.5
2024	0.48	3.90	4.30	0.01	0.64	0.31
2025	2.67	2.20	4.25	0.01	0.54	0.18
Maximum Annual Emissions	2.67	3.90	4.30	0.01	0.64	0.31
SJVAPCD Regional Threshold	10	10	100	27	15	15
Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod construction-source (unmitigated) emissions are presented in Appendix B.1.

Operational Emissions

Emissions from the operation of the facility would mainly be attributed to area sources of emissions at the Project site and from mobile sources (i.e., vehicles) associated with the operation of the warehouse. Direct energy-related emissions from the facility associated with natural gas usage were calculated by CalEEMod using default parameters. Additionally, two 300-horsepower diesel-powered emergency generators/fire pumps were also assumed. The emergency generators/fire pumps were estimated to operate for up to 1 hour per day, one day per week for up to 50 hours per year for maintenance and testing purposes. Emissions associated with the two stationary emergency diesel-powered emergency generators/fire pumps were calculated using CalEEMod.

Sources of air pollutants related to the industrial operations inside of the warehouse include two electric cargo handling port tractors (conservatively assumed to be operating on natural gas), each rated at 175 horsepower, two natural gas-powered emergency microturbines (operation for maintenance and testing only, up to 50 hours per year each) and TRUs. Source details are provided in Appendix B.1.

The warehouse operations would generate both employee and visitor passenger vehicle trips and truck trips which are mobile sources of both criteria pollutant and TAC emissions. CARB regulations limit on-site idling to less than 5 minutes per occurrence (emissions assume a conservative 15-minute idle). Signs would be posted at the facility to facilitate compliance with the regulation. Signs also directing truck traffic into and out of the facility would ensure smooth traffic flow and avoid wasteful queueing and idling.

The Project-related emissions derive primarily from 1,430 vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the Proposed Airport Drive Warehouse Traffic Impact Analysis (Appendix B.1) were utilized in this analysis. Vehicle trip lengths for off-site truck trips were based on an average travel distance of 65 miles/one-way trip and an assumption of 100% primary trips. This truck trip length was calculated based on survey data derived from Fresno Council of Government's Report for San Joaquin Valley I-5/SR-99 Good Movement Corridor Study, prepared by Cambridge Systematics, Inc. June 30, 2017, to account for truck travel that would occur within the San Joaquin Valley Air Basin. Passenger vehicle trip lengths are based on CalEEMod model defaults.

As shown in **Table 4.3-9**, the Project is expected to have long-term air quality impacts. Operation-related emissions, as calculated by CalEEMod, would be less than the SJVAPCD significant threshold levels for CO, PM₁₀, PM_{2.5}, ROG, and SO_x, but would exceed the threshold for NO_x, prior to mitigation. However, ROG, NO_x, PM₁₀, and PM_{2.5} emissions will be mitigated by the implementation of a VERA through **Mitigation Measure MM 4.3-5** and SJVAPCD Rule 9510 (Indirect Source Review).

Table 4.3-9: Unmitigated Operational Emissions Summary

Year	Emissions (ton/year)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile Source	0.76	10.33	6.34	0.10	3.79	1.12
Area Source	4.44	0.03	3.61	0.00	0.01	0.00
Energy Source	0.01	0.23	0.19	0.00	0.02	0.02
Emergency Fire Pumps	0.02	0.07	0.06	0.00	0.00	0.00
On-site Cargo Equipment	0.04	0.14	6.00	0.00	0.01	0.01
TRU Source	2.77	2.93	0.35	0.00	0.10	0.09
Microturbines	<0.005	0.18	0.05	0.54	<0.005	<0.005
Project Maximum Annual Emissions	8.04	13.91	16.60	0.64	3.93	1.24
SJVAPCD Regional Threshold	10	10	100	27	15	15
Threshold Exceeded?	No	Yes	No	No	No	No

Source: CalEEMod operational-source emissions are presented in Appendix B.1

Under the ISR, developers are encouraged to reduce as much air pollution as possible through on-site mitigation or incorporating air-friendly designs and practices into the Project. Examples include bike paths and sidewalks, traditional street design; locating near bus stops and bike paths; locating near different land use zones, such as commercial; and increasing energy efficiency. If these practices do not completely meet the required reductions, then under the rule, new development projects are required to mitigate the remainder of their emissions by contributing to a mitigation fund that would be used to pay for the most cost-effective projects to reduce emissions. Examples of such projects include the retirement and crushing of gross polluting cars, replacement of older diesel engines, and diesel-powered vehicles and programs that would encourage the replacement of gas-powered lawnmowers with electric lawnmowers.

It should be noted that overly conservative assumptions were used in the AQIA, such as 15-minute idle times (CARB ATCM 13 CCR § 2485 limits idling time to 5 minutes), natural gas-powered cargo equipment operating for twice CARB's recommended operation time, and dual diesel-powered back-up fire pumps and microturbines. Actual operational emissions with 5-minute idle times and electric cargo equipment are assumed to be below thresholds. While CARB does limit idling to 5 minutes, the AQIA uses 15 minutes which assumes 5-minute idle time for each of the following three steps that a truck completes while on-site: (1) Checking-into the site, (2) unhook trailer, and (3) leaving the site.

As shown in **Table 4.3-10**, a 33.3% reduction of the Project's operational NO_x emissions through the implementation of on-site emission reduction measures or off-site fees reduces emissions below the SJVAPCD's regional significance threshold for NO_x.

Table 4.3-10: Mitigated Operational Emissions Summary

Year	Emissions (ton/year)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Mobile Source	0.76	6.89	6.34	0.10	3.79	1.12
Area Source	4.44	0.02	3.61	0.00	0.01	0.00
Energy Source	0.01	0.15	0.19	0.00	0.02	0.02
Emergency Fire Pumps	0.02	0.05	0.06	0.00	0.00	0.00
On-site Cargo Equipment	0.04	0.09	6.00	0.00	0.01	0.01
TRU Source	2.77	1.95	0.35	0.00	0.10	0.09
Microturbines	<0.005	0.12	0.05	0.54	<0.005	<0.005
Project Maximum Annual Emissions	8.04	9.28	16.60	0.64	3.93	1.24
SJVAPCD Regional Threshold	10	10	100	27	15	15
Threshold Exceeded?	No	No	No	No	No	No

Source: CalEEMod operational-source emissions are presented in Appendix B.1

Localized Impact

Emissions occurring at or near the Project site have the potential to create a localized impact also referred to as an air pollutant hotspot. Localized emissions are considered significant if when combined with background emissions, they would result in exceedance of any health-based air quality standard. In locations that already exceed standards for these pollutants, significance is based on a significant impact level (SIL) that represents the amount that is considered a cumulatively considerable contribution to an existing violation of an air quality standard.

The SJVAPCD's GAMAQI includes screening thresholds for identifying projects that need detailed analysis for localized impacts. Projects with on-site emission increases from construction activities or operational activities that exceed the 100 pounds per day screening level of any criteria pollutant after compliance with Rule 9510 and implementation of all enforceable mitigation measures would require preparation of an AAQA. The criteria pollutants of concern for localized impact in the SJVAB are PM₁₀, PM_{2.5}, NO₂, and CO. CO violations require heavy traffic volumes and extreme traffic congestion that would not occur at or near the Project site; therefore, operational CO emission hotspots are highly unlikely.

Analyses of average daily emissions for both construction and operation phases were conducted to determine whether emissions would exceed the localized SJVAPCD 100 pounds per day screening threshold for any pollutant of concern. The daily on-site emissions were calculated from annual totals for both construction and operation. This approach follows the recommended SJVAPCD Guidance for evaluating projects for ambient air quality analysis applicability (Appendix B.4). The emissions were determined from the sum of all on-site emissions (including sources operating within ¼ mile of the site boundary) and divided by the number of active construction days (261 days per year) and operation (365 days).

The results of the localized analysis are presented in **Table 4.3-11** and **Table 4.3-12** for construction and operations, respectively. Details of the calculations are included in Appendix B.2.

Table 4.3-11: Localized Daily Air Pollutant Emissions During Construction

Year	Emissions (pound/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
2024	3.68	29.89	32.95	4.90	2.38
2025	20.46	16.86	32.57	4.14	1.38
Average Daily Emissions (lbs/day)	20.46	29.89	32.95	4.90	2.38
Screening threshold (lbs/day)	100	100	100	100	100
Threshold Exceeded?	No	No	No	No	No

Notes:

Operational Emissions include cars and trucks from project operations on-site and off-site within 0.25-mile of the site boundary.

NO_x = nitrogen oxides

PM₁₀ = particulate matter less than 10 microns in diameter

PM_{2.5} = particulate matter less than 2.5 microns in diameter

ROG = reactive organic gases

Source: Urban Crossroads 2024.

Table 4.3-12: Localized Daily Air Pollutant Emissions During Operations

Emission Source	Emissions (pound/day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Mobile Emissions	4.16	37.75	34.74	20.77	6.14
Area Source Emissions	24.33	0.11	19.78	0.05	0.00
Energy Source Emissions	0.05	0.82	1.04	0.11	0.11
Emergency Fire Pumps	0.11	0.27	0.33	0.00	0.00
On-site Cargo Equipment Emissions	0.22	0.49	32.88	0.05	0.05
TRU Source Emissions	15.18	16.05	1.92	0.55	0.49
Microturbines Emissions	0.01	1.00	0.26	0.02	0.02
Average Daily Emissions (lbs/day)	44.06	56.51	90.94	21.55	6.82
Screening threshold (lbs/day)	100	100	100	100	100
Threshold Exceeded?	No	No	No	No	No

Notes:

Operational Emissions include cars and trucks from project operations on-site and off-site within 0.25-mile of the site boundary.

NO_x = nitrogen oxides

PM₁₀ = particulate matter less than 10 microns in diameter

PM_{2.5} = particulate matter less than 2.5 microns in diameter

ROG = reactive organic gases

Source: Urban Crossroads 2024.

The Project would not exceed SJVAPCD screening thresholds for requiring additional ambient air quality modeling. Both the Project's localized criteria pollutant impacts from construction and operation are less than significant.

Based on the non-attainment status of the air basin, regional health risks associated with air quality impacts, and the requirement under CEQA that all reasonable and feasible mitigation be required, **Mitigation Measure MM 4.3-5** requires the execution of a Developer Mitigation Agreement (DMA) with the SJVAPCD for mitigation of criteria pollutants. The implementation, as mitigation, of a DMA to reduce criteria pollutants of NO_x, ROGs, and PM net incremental emissions generated by a project has been incorporated into development projects in Kern County since 2008.

This is the same instrument and pathway the air district calls a Voluntary Emission Reduction Agreement (VERA). Once applied as mitigation they are not a “voluntary” agreement with the SJVAPCD but is mandated by enforceable mitigation measures as a DMA. The emission reductions required by a DMA are normally implemented within the SJVAB in quantities sufficient to fully mitigate the Project’s air quality impacts such that the development of the Project could be considered to result in no net increase in the designated criteria pollutant emissions over the criteria pollutant emissions that would otherwise exist without the development of the Project, all to be verified by the SJVAPCD. The mandated emission reductions will be achieved by a menu of options that range from paying a calculated mitigation fee for use in doing emission reduction projects through a grant-type program to applicants in a pre-determined area. The executed DMA will require the payment of a calculated mitigation fee per ton to the SJVAPCD. The agreement also includes an additional administrative fee of 4% collected for the SJVAPCD. Expenditure of the mitigation funds is then done for certified air quality reduction projects through the SJVAPCD. The final determination of air quality reductions achieved shall be under the determination of the SJVAPCD.

As implemented, the DMA results in greater reductions than would otherwise occur under the District’s ISR, since the ISR does not require ROG reductions and the ISR only requires a percentage of reductions rather than full reductions of NO_x and PM resulting from project construction and operations. When adopting the ISR and the subsequent VERA/DMA programs, the District acknowledges that as ROG is a precursor to ozone, reductions are not required in the VERA/DMA. Instead, the reductions are achieved by increasing the NO_x and PM tonnage for project levels; see SJVAPCD (2005); this and other key SJVAPCD documents are included in Appendix B.3. As the actual amount of ROG reductions achieved from NO_x and PM₁₀ reductions is not certain, Project emissions are still considered significant and unavoidable; however, all feasible and reasonable mitigation has been required to reduce criteria pollutants as close to “no net increase” as scientifically possible. This approach has been found legally sufficient by court rulings in the following cases; *California Building Industry Assn. v. San Joaquin Valley APCD*, Fresno County Case No. 06 CECG 02100 DS13; *National Association of Home Builders v. San Joaquin Valley Air Pollution Control District*, Federal District Court, Eastern District of California, Case No. 1:07-CV-00820-LJO-DLB; and *Center for Biological Diversity et al. v. Kern County*, Fifth Appellate District, Case No. F061908.

However, potential cumulative impacts on air quality could occur from the construction and operation of the Project in combination with regional growth projections in the same air basin. It is speculative to determine how exceeding the regional thresholds would affect the number of days the region is in nonattainment since mass emissions are not correlated with concentrations of emissions or how many additional individuals in the air basin would be affected by the health

impacts mentioned. The SJVAPCD is the primary agency responsible for ensuring the health and welfare of sensitive individuals to elevated concentrations of air quality in the SJVAB at the present time and it has not provided methodology to assess the specific correlation between mass emissions generated and the effect on public health and welfare. Therefore, it is the Lead Agency's determination that cumulative impacts for criteria pollutants are considered significant and unavoidable.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5** would be required.

Level of Significance after Mitigation

Despite implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5**, impacts would remain significant and unavoidable after mitigation.

Impact 4.3-3: The project would expose sensitive receptors to substantial pollutant concentrations:

Sensitive receptors are particularly sensitive to air pollution because they are persons that are ill, elderly, or have lungs that are not fully developed. Locations where such persons reside, spend considerable amount of time, or engage in strenuous activities are also referred to as sensitive receptors. Typical sensitive receptors include inhabitants of long-term healthcare facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, childcare centers, and athletic facilities.

The Project consists of two multi-tenant warehouse buildings with a total area of 923,130 square feet on 49.05 acres. As such, the potential impact of Project-generated air pollutant emissions at sensitive receptors has also been considered. Sensitive receptors can include uses such as long-term healthcare facilities, rehabilitation centers, and retirement homes. Residences, schools, playgrounds, childcare centers, and athletic facilities can also be considered sensitive receptors.

Receptors in the Project study area are described below. All distances are measured from the Project site's boundary to the outdoor living areas (e.g., backyards) or at the building façade, whichever is closer to the Project site. The selection of receptor locations is based on Federal Highway Administration guidelines and is consistent with additional guidance provided by Caltrans and the Federal Transit Administration. Distance is measured in a straight line from the Project boundary to each receptor location.

- R1 Location R1** represents the existing residence at 855 Greenwood Meadow Lane, approximately 667 feet northeast of the Project site. Receptor R1 is placed in the private outdoor living areas (backyard) facing the Project site.
- R2 Location R2** represents the existing residence at 3117 Alhambra Meadow Court, approximately 173 feet northeast of the Project site. Receptor R2 is placed in the private outdoor living areas (backyard) facing the Project site.

- R3 Location R3** represents the existing residence at 720 Meadow Grove Court, approximately 809 feet east of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R3 is placed at the building façade.
- R4 Location R4** represents the Park Meadows Apartment community residence at 840 Park Meadows Avenue, approximately 102 feet east of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R4 is placed at the building façade.
- R5 Location R5** represents the existing residence at 2101 Wingland Drive, approximately 910 feet southeast of the Project site. Receptor R5 is placed in the private outdoor living areas (backyard) facing the Project site.
- R6 Location R6** represents the Priceless Car Rental at 2813 Hanger Way Suite A, approximately 109 feet west of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R6 is placed at the building façade.
- R7 Location R7** represents the Wingland Elementary School at 701 Douglas Street, approximately 1,115 feet southeast of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receptor R7 is placed at the building façade.

As detailed in the sensitive receptor discussion, the closest residential receptor (R4) is located approximately 102 feet east of the Project site in the Park Meadows Apartment community residence at 840 Park Meadows Avenue. The closest sensitive receptor (R7), Wingland Elementary School, is approximately 1,115 feet southeast of the Project site. The closest worker receptor (R6), the Priceless Car Rental at 2813 Hanger Way, is located approximately 109 feet west of the Project site. **Figure 4.3-1** depicts the location of the sensitive receptors relative to the Project site over an aerial image.

Figure 4.3-1: Sensitive Receptor Locations



Toxic Air Contaminants

The primary TAC of concern for this project would be DPM emitted within the Project site from the construction and operation phases of the Project. The emissions of potential DPM associated with construction activities are expected to be low and would be transient, temporary, and occur in varying locations within the Project site. A screening HRA was performed for construction DPM emissions using the AERMOD dispersion model, along with equations from the Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments (OEHHA 2015), to estimate the Project's cancer and non-cancer chronic health risks. The Project's non-cancer acute health risks were not estimated because OEHHA has not established an acute reference exposure level for DPM and there are no acute non-cancer risk values associated with DPM.

Construction and Operation

Construction of on-site facilities and off-site improvements would generate short-term DPM air quality impacts, which were evaluated in the HRA. Detailed assumptions and calculations are included in the project-specific Health Risk Assessment Data (Appendix B.1). The HRA evaluated cancer and non-cancer chronic health risks from construction. DPM is the primary TAC associated with construction, and it does not have an acute Reference Exposure Level (REL); therefore, the acute hazard index was not quantified for construction impacts.

Exposure to TACs during the construction period was assumed to start with a fetus in the third trimester and continue for the 24 months of construction. Breathing rates and age sensitivity factors from the OEHHA guidance were assumed for the age bin from third-trimester fetus to two years of age.

Operation of the Project once construction is completed would also generate TAC emissions, as described above. Because cancer risk accumulates over time, the HRA evaluated cancer risk from the Project's operations with exposure starting at the end of construction.

The cancer risk at Maximally Exposed Individual Resident, Maximally Exposed Individual Worker, and Maximally Impacted Sensitive Receptor are provided in **Table 4.3-13**. As illustrated therein, the construction phase of the Project (estimated to span 1.95 years) would not result in increased cancer risk or hazard index in excess of SJVAPCD's significance thresholds. Overall, impacts associated with the Project's potential to expose sensitive receptors to substantial TACs due to the Project-generated construction emissions would be less than significant.

Table 4.3-13: Estimated Unmitigated Health Risk during Construction and Operation

Risk	Value	SJVAPCD Threshold	Exceeds SJVAPCD Threshold (Y/N)?	Receptor Coordinates (UTM NAD 83 Zone 11)	
				Easting (meters)	Northing (meters)
Cancer MEIR Risk (in a	16.54	20 in 1 million	N	314928.0	3922941.1
Cancer Sensitive Risk (in a	0.64	20 in 1 million	N	315155.7	3922199.3
Cancer MEIW Risk (in a	2.04	20 in 1 million	N	314482.5	3922988.5

Risk	Value	SJVAPCD Threshold	Exceeds SJVAPCD Threshold (Y/N)?	Receptor Coordinates (UTM NAD 83 Zone 11)	
				Easting (meters)	Northing (meters)
Chronic MEIR HI	0.02	1.0	N	314928.0	3922941.1
Chronic Sensitive HI	≤0.01	1.0	N	315155.7	3922199.3
Chronic MEIW HI	0.01	1.0	N	314482.5	3922988.5

Notes:

NAD = North American Datum

UTM = Universal Transverse Mercator

HI = Hazard Index

MEIR = Maximally Exposed Individual Resident

MEIW = Maximally Exposed Individual Worker

SJVAPCD = San Joaquin Valley Air Pollution Control District

Criteria Air Pollutants

Sierra Club vs. County of Fresno (December 24, 2018)

In *Sierra Club v. County of Fresno* (S219783) (Sierra Club) the Supreme Court held that CEQA requires environmental impact reports to either (i) make a “reasonable effort” to substantively connect the estimated amount of a given air pollutant a project will produce and the health effects associated with that pollutant, or (ii) explain why such an analysis is infeasible (6 Cal.5th at 1165-66). However, the Court also clarified that CEQA “does not mandate” that EIRs include “an in-depth risk assessment” that provides “a detailed comprehensive analysis . . . to evaluate and predict the dispersion of hazardous substances in the environment and the potential for exposure of human populations and to assess and quantify both the individual and population-wide health risks associated with those levels of exposure.” *Id.* at 1665. However, correlating the Project’s criteria air pollutant to specific health impacts, particularly with respect to O₃ is not possible because there is no feasible or established scientific method to perform such analysis. This conclusion is supported by both the SJVAPCD and the South Coast Air Quality Management District (SCAQMD) who have determined that this type of analysis is speculative and infeasible and there are no unique issues for the SJVAPCD that would make this analysis invalid.

Writing as amicus curiae in *Sierra Club*, the SJVAPCD explained that “[t]he health impact of a particular criteria pollutant is analyzed on a regional and not a facility level based on how close the area is to complying with (attaining) the NAAQS. Accordingly, while the type of individual facility/health impact analysis that the Court of Appeal has required is a customary practice for TACs, it is not feasible to conduct a similar analysis for criteria air pollutants because currently available computer modeling tools are not equipped for this task” (SJVAPCD 2015).

Instead, the SJVAPCD explained that it assesses a project’s potential to exceed NAAQS by evaluating the Project’s compliance with district thresholds of significance, which are measured in mass emissions (SJVAPCD 2015). As explained by SJVAPCD, its thresholds are based on factual, scientific data and have been set at a level that ensures that NAAQS will not be exceeded, taking into consideration all cumulative emission sources (SJVAPCD 2015). The SJVAPCD explained that attempting to connect criteria pollutant emissions to localized health impacts will “not yield

reliable information because currently available modeling tools are not well suited for this task” (SJVAPCD 2015). Available models are only equipped to model the impact of all emissions sources on an air basin-wide or regional basis, not on a project-level basis, and “[r]unning the photochemical grid model used for predicting ozone attainment with emissions solely from one project would thus not be likely to yield valid information given the relative scale involved” (SJVAPCD 2015).

This inability to “accurately ascertain local increases in concentration” of mass emissions and then to further link emissions with health effects is particularly true for O₃ and its precursors NO_x, ROG, and VOC; O₃ is not directly emitted into the air but is instead formed as ozone precursors undergo complex chemical reactions through sunlight exposure (SJVAPCD 2015). Given the complex nature of this process, and the fact that O₃ can be transported by wind over long distances, “a specific tonnage amount of NO_x or VOCs emitted in a particular area does not equate to a particular concentration of ozone in that area” (SJVAPCD 2015). For this reason, the photochemical analysis for O₃ is done on a regional scale and it is inappropriate to analyze O₃ impacts at a local or project-level basis because a localized analysis would at most be speculative and, at worst, be misleading. Speculative analysis is not required by CEQA (CEQA Guidelines Section 15145; *Laurel Heights Improvement Association v. Regents of the University of California* 1988).

The SJVAPCD also explained that the disconnect between the tonnage of precursor pollutants and the concentration of O₃ or particulate matter formed in a particular area is especially important to understand in considering potential health effects because it is the concentration, not the tonnage, that causes health effects (SJVAPCD 2015). The SJVAPCD explained that even if a model were developed that could accurately assess local increases in concentrations of pollutants like O₃ and particulates, it would still be “impossible, using today’s models, to correlate that increase in concentration to a specific health impact” (SJVAPCD 2015). The SJVAPCD stated that even a project with criteria pollutant emissions above its CEQA thresholds does not necessarily cause localized human health impacts as, even with relatively high levels of emissions, the SJVAPCD cannot determine “whether and to what extent emissions from an individual project directly impact human health in a particular area” (SJVAPCD 2015). The SJVAPCD explained that this is particularly true for development projects like the Project, where most of the criteria pollutants derive from mobile and area sources and not stationary sources. The SCAQMD also, as amicus curiae in *Sierra Club*, made similar points, reiterating that “an agency should not be required to perform analyses that do not produce reliable or meaningful results” (SCAQMD 2015). SCAQMD agrees that it is very difficult to quantify health impacts with regard to O₃, opining that the only possible means of successfully doing so is for a project so large that emissions would essentially amount to all regional increases (SCAQMD 2015). With regard to particulate matter, the SCAQMD noted that while the ARB has created a methodology to predict expected mortality from large amounts of PM_{2.5}, the primary author of the methodology has reported that it “may yield unreliable results due to various uncertainties” and ARB staff has been directed by its Governing Board to reassess and improve it, which factor “also counsels against setting any hard-and-fast rule” about conducting this type of analysis (SCAQMD 2015).

Ambient Air Quality Standards

The EPA and ARB have established NAAQS at levels above which concentrations could be harmful to human health and welfare, with an adequate margin of safety. Further, California air districts, like the SJVAPCD, have established emission-based thresholds that provide project-level estimates of criteria air pollutant quantities that air basins can accommodate without affecting the attainment dates for the NAAQS. Accordingly, elevated levels of criteria air pollutants as a result of a project's emissions could cause adverse health effects associated with these pollutants. The project site is located in the Kern County portion of the SJVAB, which is designated as an attainment area for O₃ (1- hour), PM₁₀ and PM_{2.5} and nonattainment for O₃ (8-hour) under the NAAQS, and nonattainment for O₃, PM₁₀, and PM_{2.5} under the CAAQS.

Project Health Effects of Criteria Air Pollutants

Regarding health effects of criteria air pollutants, the Project's potential to result in regional health effects associated with ROG, NO_x, PM₁₀, and PM_{2.5} on specific vulnerable populations cannot be calculated given existing scientific constraints. A scientific method to calculate the exact number of individuals in a vulnerable population that will get sick has not been developed; therefore, it is assumed localized health effects associated with NO_x, PM₁₀, and PM_{2.5} emissions from project implementation could occur. The Project is the construction and operation of a new warehouse that would require dust-generating construction activities such as site preparation, mowing, paving, and grading, over a large area. Blowing dust could occur and result in the dispersal of criteria air pollutants such as PM_{2.5} and potentially contribute to the transmission of respiratory diseases like COVID-19. While COVID-19 is thought to spread mainly through close contact from person to person, the CDC is still learning how the virus spreads and the severity of the illness it causes (CDC 2020b). A nationwide study by Harvard University found a linkage between long-term exposure to PM_{2.5} as air pollution and statistically significant increased risk of COVID-19 death in the United States (Harvard 2020). While construction dust suppression measures would be implemented in **Mitigation Measures MM 4.3-1** through **MM 4.3-10**, exposure to dust during construction could still occur which could increase the health susceptibility and increase the severity of the disease. In addition to the implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-10**, the Project would implement **Mitigation Measure MM 4.3-8**, which requires the implementation of a COVID-19 Health and Safety Plan in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates.

Therefore, implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-10** would be required to reduce the Project's regional and localized health effects associated with criteria air pollutants and COVID-19; however, the exact reduction from implementation of these mitigation measures cannot be quantified given existing scientific constraints.

Carbon Monoxide Hotspots

As discussed below, the Project would not result in potentially adverse CO concentrations or “hot spots.” Further, detailed modeling of Project-specific CO “hot spots” is not needed to reach this conclusion.

An adverse CO concentration, known as a “hot spot,” would occur if an exceedance of the state 1-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the air basin was designated non-attainment under the CAAQS and NAAQS for CO (SCAQMD 2023).

It has long been recognized that CO hot spots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the air basin is now designated as attainment, as previously noted.

To establish a more accurate record of baseline CO concentrations affecting the basin, a CO “hot spot” analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This “hot spot” analysis did not predict any violation of CO standards, as shown in **Table 4.3-14**.

Table 4.3-14: CO Model Results

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	Afternoon 1-hour	8-hour
Wilshire Boulevard/Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/Highland Avenue	4.0	4.5	3.5
La Cienega Boulevard/Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/Imperial Highway	3.0	3.1	8.4

Source: Urban Crossroads (2003 AQAP, Appendix V: Modeling and Attainment Demonstrations)

Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

It should be noted that SJVAPCD has not established its own guidelines for CO hot spots analysis. Since the SJVAPCD guidelines are based on SCAQMD methodology, it is appropriate to apply the SCAQMD criteria when analyzing CO hot spots within the SJVAPCD. As identified within SCAQMD's 2003 AQAP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak CO concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm 8-hour CO concentration measured at the Long Beach Boulevard and Imperial Highway intersection (highest CO generating intersection within the “hot spot” analysis), only 0.7 ppm was attributable to the traffic volumes and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQAP was prepared (Appendix B.4).

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph)—or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (BAAQMD 2024).

Traffic volumes generating the CO concentrations for the “hot spot” analysis is shown in **Table 4.3-15**. The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which had AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (SCAQMD 2003). The 2003 AQAP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 32,248 vph, CO concentrations ($4.6 \text{ ppm} \times 4 = 18.4 \text{ ppm}$) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).

As shown in the Traffic Impact Analysis, the highest average AM/PM traffic volumes on a segment of road would be 4,241 vph and 4,928 vph, respectively, at the SR-99 connector to Highway 65 and Merle Haggard Drive, which is lower than the highest AM/PM traffic volumes at Wilshire Boulevard and Veteran Avenue of 8,062 vph and 7,719 vph, respectively (Appendix J). As such, Project-related traffic volumes are less than the traffic volumes identified in the 2003 AQAP. The Project considered herein would not produce the volume of traffic required to generate a CO “hot spot” either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO “hot spots” are not an environmental impact of concern for the Project. Localized air quality impacts related to mobile-source emissions would therefore not have the potential to exceed the applicable air quality standards.

Table 4.3-15: Traffic Volumes

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674
Long Beach Boulevard/Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Visibility Impacts

As discussed above under Methodology, Kern County has established criteria to determine whether a project would potentially result in a visibility impact; however, the SJVAPCD has not established guidance to address visibility in CEQA documents. Per the Kern County guidelines, a visibility analysis is not required since the Project is not a large industrial stationary source project or a mining project, and it would not have long-term operational components that could generate dust, or emissions plumes related to visibility. Compliance with Regulation VIII, including implementation of all feasible dust control measures specified in SJVAPCD's *Guide for Assessing and Mitigating Air Quality Impacts* and incorporated into a Dust Control Plan, is sufficient mitigation to reduce air quality effects from construction-related PM₁₀ emissions to a less than significant level (SJVAPCD 2015).

The Project's potential to expose sensitive receptors to substantial pollutant concentrations associated with visibility impacts would be less than significant with the mitigation measures described above (**Mitigation Measures MM 4.3-1** and **MM 4.3-2**), and no additional mitigation is required.

Valley Fever

The *Coccidioides immitis* fungus spores in soil, which are responsible for transmitting the Valley Fever, can disperse in the air when the soil is disturbed during construction activities, and then can be inhaled into the lungs. On-site construction workers potentially could be exposed to Valley Fever from fugitive dust generated during the construction of the Project, notably during excavation, grading, and other earthmoving activities. While there are no specific thresholds for the evaluation of potential *Coccidioides immitis* (Valley Fever) exposure, the potential for workers or area residents contracting Valley Fever as a result of the Project is evaluated based on the anticipated earthmoving activities, and considers applicant-proposed measures and compliance with Rule 8021, Section 6.3, which requires development and implementation of a dust control plan to help control the release of the *Coccidioides immitis* fungus during construction activities. Construction activities within the Project area are subject to SJVAPCD Regulation VIII (Fugitive PM₁₀ Prohibition). Regulation VIII is intended to reduce ambient concentrations of PM₁₀ by requiring actions to prevent, reduce, or mitigate anthropogenic fugitive dust emissions. **Mitigation Measure MM 4.3-2** would be implemented to further reduce impacts associated within Valley Fever and pandemics. By reducing fugitive dust emissions, Regulation VIII reduces potential exposure to Valley Fever. Since current long-term residents typically already have been exposed to and have developed immunity to Valley Fever, construction activities are not expected to add significantly to the exposure of off-site residents to the fungus.

Naturally Occurring Asbestos

Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards. These rocks have been commonly used for unpaved gravel roads, landscaping, fill projects, and other improvement projects in some localities. Asbestos may be

released to the atmosphere due to vehicular traffic on unpaved roads, during grading of development projects, and at mining operations.

Serpentine and/or ultramafic rock are known to be present in 44 of California's 58 counties. These rocks are particularly abundant in the counties associated with the Sierra Nevada foothills, the Klamath Mountains, and Coast Ranges. However, according to information provided by the Department of Conservation Division of Mines and Geology, the Project site is not in an area likely to contain ultramafic rock or naturally occurring asbestos (California DOC 2000). Therefore, impacts associated with exposure of construction workers and nearby sensitive receptors to asbestos would be less than significant.

Coronavirus Disease 2019

A public health emergency was initially declared by the Secretary of the Department of Health and Human Services in late January 2020, pursuant to Section 319 of the Public Health Service Act. A public health emergency lasts for 90 days and must be renewed to continue; the public health emergency for COVID-19 was renewed several times, most recently in February 2023, and expired on May 11, 2023. A national emergency declaration was issued in March of 2020, pursuant to Section 201 of the National Emergencies Act, and expired on May 11, 2023. However, **Mitigation Measure MM 4.3-8** would require a COVID Health and Safety Plan outlining best practices to prevent and respond to COVID-19 outbreaks.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5**, described above, would be required and:

- MM 4.3-6** To minimize personnel and public exposure to potential Valley Fever–containing dust on and off site, the following control measures shall be implemented during project construction:
- Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved offsite to other work locations.
 - Wherever possible, grading and trenching work shall be phased so that earth-moving equipment is working well ahead or downwind of workers on the ground.
 - The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area.
 - In the event that a water truck runs out of water before dust is sufficiently dampened, ground workers exposed to dust shall leave the area until a truck can resume water spraying.
 - To the greatest extent feasible, heavy-duty earth-moving vehicles shall be closed-cab and equipped with a HEPA-filtered air system.

- f. Workers shall receive training in procedures to minimize activities that may result in the release of airborne *Coccidioides immitis* (CI) spores and recognize the symptoms of Valley Fever and shall be instructed to promptly report suspected symptoms of work-related Valley Fever to a supervisor. Evidence of training shall be provided to the Kern County Planning and Natural Resources Department within 5 days of the training session.
- g. A Valley Fever informational handout shall be provided to all onsite construction personnel and surrounding residences within 1,000 feet of the project site. The handout shall, at a minimum, provide information regarding symptoms, health effects, preventative measures, and treatment of Valley Fever. No less than 30 days prior to any work commencing, this handout shall be mailed to all existing residences within 1,000 feet of the project boundaries. Additional information and handouts can be obtained by contacting the Kern County Public Health Services Department.
- h. Onsite personnel shall be trained on the proper use of personal protective equipment, including respiratory equipment. National Institute for Occupational Safety and Health-approved respirators shall be provided to onsite personnel, upon request. When exposure to dust is unavoidable, affected workers shall be provided appropriate NIOSH-approved respiratory protection. If respiratory protection is deemed necessary, employers must develop and implement a respiratory protection program in accordance with the California Occupational Safety and Health Administration's Respiratory Protection standard (8 CCR 5144).

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

MM 4.3-8 At the time of project implementation, a COVID-19 Health and Safety Plan shall be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. A copy of the COVID-19 Health and Safety Plan shall be submitted to the Kern County Planning Department to be kept on file.

MM 4.3-9 Prior to commencement of any on-site construction activities (i.e., fence construction, mobilization of construction equipment, initial grading), the Project applicant shall provide written notice to the public through mailing a notice to all parcels within 1,000 feet of the project site, as well as the resident manager of the California Aeronautical University Student Housing at the western terminus of Boughton Drive, no sooner than 15 days prior to construction activities. The notices shall include the construction schedule, a telephone number and email address where complaints and questions can be registered. Additionally, a minimum of one sign, legible at a distance of 50 feet, shall also be posted at the construction sites or adjacent to the nearest public access to the main construction

entrances throughout construction activities which include the construction schedule (updated as needed) and a telephone number where complaints can be registered. Documentation that the public notice has been sent and the sign has been posted shall be provided to the Kern County Planning and Natural Resources Department.

MM 4.3-10 Prior to the issuance of any grading or building permit, the project applicant shall establish a “construction coordinator” and submit written documentation which includes their phone number, email address and mailing address. The construction coordinator shall be responsible for the following:

- a. Responding to any local complaints about construction activities. The construction coordinator shall determine the cause of the construction complaint and shall be required to implement reasonable measures such that the complaint is resolved.
- b. Ensuring all appropriate construction notices have been made available to the public and that all appropriate construction signs have been installed.
- c. Maintaining an ongoing up-to-date log of all construction-related complaints (i.e., blowing dust, inability to access parcels, etc.) during project construction activities. The log shall include the nature of the complaint and the measures that were undertaken to address the concerns. Upon request, the construction coordinator shall provide the log to the Planning and Natural Resources Department no later than three business days from request.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-10**, impacts would be less than significant after mitigation.

Impact 4.3-4: The project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The Project does not contain land uses typically associated with emitting objectionable odors. Potential odor sources associated with the Project may result from construction equipment exhaust and the application of asphalt and architectural coatings during construction activities and the temporary storage of typical solid waste (refuse) associated with the Project’s (long-term operational) uses. Standard construction requirements would minimize odor impacts from construction. The construction odor emissions would be temporary, short-term, and intermittent in nature and would cease upon completion of the respective phase of construction and is thus considered less than significant. It is expected that Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the County’s solid waste regulations.

The Project would also be required to comply with SJVAPCD Rule 4102 to prevent occurrences of public nuisances. Therefore, the Project does not have the potential to generate objectionable odors and no mitigation is required.

Mitigation Measures

No mitigation measures are required.

Level of Significance

Impacts would be less than significant.

4.3.5 Cumulative Setting, Impacts, and Mitigation Measures

The Kern County Planning and Natural Resources Department's Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports (Kern County 2006) requires a cumulative air quality assessment to consider localized impacts, determine consistency with existing air quality plans, and provide SJVAB and Kern County emission comparison tables. In addition, the SJVAPCD's Guidance for Assessing and Mitigating Air Quality Impacts (SJVAPCD 2015) recommends accessing cumulative impacts by evaluating past, present, and reasonably foreseeable projects in the future that may impact air quality in correlation with the Project. Cumulative impacts are defined by CEQA as two or more individual effects that when considered together cause considerable impacts.

The geographic extent for considering cumulative regional air quality impacts would include Kern County as well as the SJVAB, within which the Project is located. For the assessment of localized cumulative air quality impacts, Kern County's *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* recommends that the assessment include projects located within a one-mile and six-mile radius of the Project boundaries, as well as similar development projects located within the SJVAB. Projects located within 6-mile radius of the Project site are summarized in **Table 3-4** in Section 3, *Project Description*, of this Draft EIR.

As noted previously, the SJVAB is a nonattainment area for the State 1-hour O₃, 8-hour O₃, PM₁₀, and PM_{2.5} standards and is a nonattainment area for National 8-hour O₃ and PM_{2.5} standards. This represents an existing cumulative regional impact. As previously discussed, project construction and operational emissions of these pollutants are not anticipated to violate or lead to additional violations of the NAAQS and CAAQS. Consistent with the SJVAPCD's *Guide for Assessing and Mitigating Air Quality Impacts*, the Project would accordingly result in a less than significant cumulative impact in relation to criteria air pollutants:

By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development. Future attainment of State and federal ambient air quality standards is a function of successful implementation of the District's attainment plans. Consequently, the District's application of thresholds of significance for criteria pollutants is relevant to the determination of whether a project's individual emissions would have a cumulatively significant impact on air quality.

A lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program.

Thus, if project-specific emissions would be less than the thresholds of significance for criteria pollutants, as a general matter the Project would not be expected to result in a cumulatively considerable net increase of any criteria pollutant for which the SJVAPCD is in nonattainment under applicable federal or State ambient air quality standards.” (SJVAPCD 2015). However, there is scientific uncertainty regarding the offsetting of NO_x emissions through VOC reductions, and the County does not have jurisdiction and control over all potential projects in the SJVAB and, thus, cannot assure that such projects would fully offset their criteria emissions pursuant to a DMA. This represents a potentially considerable contribution to the existing cumulative regional impact, for which no additional mitigation is available. Therefore, the Project's cumulative impacts for criteria pollutants are considered significant and unavoidable.

Cumulative Analysis

The project site is located within the Kern County portion of the SJVAB, which is an area that is designated as nonattainment/severe for state 1-hour ozone standards, nonattainment for state 8-hour ozone standards, nonattainment for state 24-hour and annual arithmetic mean for PM₁₀ standards, nonattainment for state annual arithmetic mean for PM_{2.5} standards, nonattainment/extreme for national 8-hour ozone standards, and nonattainment for national 24-hour and annual arithmetic mean for PM_{2.5} standards, and is under the jurisdiction of the SJVAPCD. The SJVAPCD's approach for assessing cumulative impacts is based on the forecasts of attainment and AAQS in accordance with requirements of the federal and State clean air acts.

Localized Impacts

No projects are located within a one-mile radius of the Project boundaries. A total of 29 projects are located within a six-mile radius of the Project site. As discussed above, detailed construction information and emissions estimates were not available for these projects.

As noted earlier in this report, the Project would result in increased emissions of localized pollutants, including emissions of fugitive dust, DPM, and CO. Depending on the emissions generated by projects for which information is not currently available, it is possible that construction and operational emissions could potentially exceed SJVAPCD's significance thresholds. However, despite the implementation of the DMA outlined in **Mitigation Measure MM 4.3-5**, the emissions from the Project cannot be entirely mitigated. For this reason, cumulative localized air quality impacts associated with short-term construction and long-term operational activities would be considered potentially significant and unavoidable.

Consistency With Existing Air Quality Plans

Consistency with the AQAP, even at the cumulative level, is based on a comparison of project-generated growth in employment, population, and vehicle miles traveled within the region. With the implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-10**, the Project would

not result in significant temporary levels of NO_x, CO, and PM₁₀ emissions during construction, nor would the Project obstruct SJVAPCD's ability to achieve further progress toward attainment of the State standards. However, because of scientific uncertainty regarding the offsetting of NO_x emissions through VOC reductions, and because the County does not have jurisdiction and control over all potential projects in the SJVAB and, thus, cannot assure that such projects would fully offset their criteria emissions pursuant to a DMA, cumulative impacts for criteria pollutants during construction are considered significant and unavoidable.

With regard to operation, the Project is not expected to induce growth or result in trips or criteria pollutant emissions during operation that would conflict with SJVAPCD's attainment of the State standards as the Project is not expected to exceed thresholds for any nonattainment pollutant. Nonetheless, the Project would implement **Mitigation Measures MM 4.1-3** (see *Section 4.1, Aesthetics*, for full mitigation text), and **MM 4.3-1** through **MM 4.3-5** during project operations to mitigate emissions to the fullest extent. Therefore, the Project's incremental contribution to cumulative air quality impacts related to operation would not be cumulatively considerable and would not compromise existing air quality plans. Cumulative operational impacts would not be cumulatively considerable.

California Air Resources Board Air Basin Emissions

To demonstrate the contribution of the Project's operational emissions relative to the cumulative air quality conditions in Kern County and the SJVAB, the Project's specific emissions were compared to the emission projection data for Kern County and the SJVAB. Projected Year 2020 emissions inventory data for the SJVAB, including the portion of Kern County located within the SJVAB, is summarized in **Table 4.3-16**. The emissions projections were obtained from the CARB and were developed based on the most current emissions inventory available for the year 2020. This data is used by SJVAPCD to assist in demonstrating attainment of ambient air quality standards. As depicted in **Table 4.3-16**, the Project would constitute only a small fraction of basin-wide or countywide emissions.

Table 4.3-16: Comparative Analysis Based on San Joaquin Valley Air Basin 2020 Inventory

Source	Pollutant (tons/year)					
	VOC	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Kern County - 2020	62,720	16,882	47,396	635	15,493	4,969
SJVAB - 2020	379,634	76,772	470,879	3,478	120,664	42,986
Project (Mitigated)	8.04	9.28	16.60	0.64	3.93	1.24
Project's % of Kern	0.013%	0.055%	0.035%	0.101%	0.025%	0.025%
Project's % of SJVAB	0.002%	0.012%	0.004%	0.018%	0.003%	0.003%

Source: Urban Crossroads 2024

Notes: Emission projections for Kern County and the San Joaquin Valley Air Basin are for the year 2020, consistent with the County's Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports (Kern County 2006).

Mitigation Measures

Implementation of **Mitigation Measures MM 4.1-3** (See *Section 4.1, Aesthetics*, for full mitigation text), and **MM 4.3-1** through **MM 4.3-10** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.1-3** (See *Section 4.1, Aesthetics*, for full mitigation text), and **MM 4.3-1** through **MM 4.3-10**, cumulative impacts would be significant and unavoidable during construction and operations after mitigation.

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Section 4.4

Biological Resources

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Section 4.4

Biological Resources

4.4.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding biological resources either present or with the potential to be present on the proposed IPG Industrial Project (Project) site. It also evaluates the existing biological conditions on the project site and its vicinity; the criteria used to evaluate the significance of potential impacts on biological resources; the methods used in evaluating these potential impacts; an analysis of potential impacts; and identifies mitigation measures that would reduce these impacts, if necessary. This section is informed by the June 2024 Biological Resources Assessment Report prepared by Dudek (Appendix C) published literature, and federal and state databases.

Literature review, further described in Appendix C, included information available in peer-reviewed journals, standard reference materials, and relevant databases, including the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants, the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation, and the Calflora Information about California Plants for Education, Research, and Education. Other sources of information that assessed the potential for sensitive biological and wetland resources within the project area include the U.S Geological Survey (USGS) National Hydrology Dataset, USFWS National Wetlands Inventory, and the U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey. Furthermore, field assessments took place throughout the project site to identify and characterize existing natural resources on the site and determine the potential for special status plant and wildlife species; sensitive vegetation communities; and regulated aquatic resources, such as wetlands, to occur on the site.

4.4.2 Environmental Setting

Regional Setting

Kern County is California's third largest county, encompassing 8,161 square miles at the southern end of the Central Valley. The 49-acre project site is entirely located in the central portion of Kern County, with the greater region bounded by Kings and Tulare counties to the north, Santa Barbara and San Luis Obispo counties to the west, the Tehachapi Mountains and the Sierra Nevada to east, and the Los Padres National Forest of northern Los Angeles County to the south.

Climate

The region in which the Project is located is characterized by a typical Mediterranean climate of hot summers and mild, wet winters. Average high temperatures range from 57 degrees Fahrenheit (°F) in January to 100°F in July, with daily temperatures exceeding 100°F several days in the

summer. Average low temperatures range from 41°F in December to 67°F in July. Precipitation occurs primarily as rain, most of which falls from December to April, with an average of 5.4 inches of rainfall per year. Precipitation may also occur as a dense fog known as “Tule fog” during the winter months. Rain rarely falls during the summer months.

Vegetation

Vegetation in the San Joaquin Valley region is influenced by arid climatic conditions, topography, and past land uses. This region is an elongated, north–south oriented lowland surrounded by coastal ranges to the west and the Sierra Nevada Mountains to the east. Vegetation in the valley is characteristic of California Floristic Province communities and includes valley and foothill grasslands, meadows and seeps, vernal pools, freshwater marsh and riparian communities, coastal scrub, chenopod scrub, chaparral, and cismontane woodlands, stands of valley oak, and some desert elements in the southern San Joaquin Valley (Hickman 1993). Vegetation communities of the valley are bordered by oak-pine woodlands and mixed hardwood forests at higher elevations. Native vegetation within the valley has largely been replaced by a variety of agricultural uses.

Wildlife

Wildlife occurring within the project site is typical of the agricultural fields of western Kern County. Four common bird species and one common mammal species were audibly or visually detected, or observed by presence of sign (e.g., scat, burrows/dens, prey remains, whitewash), during the on-site survey. As noted above, the project site is dominated by non-native grassland, which is typically used by common wildlife species.

The mature trees along the residences and power lines and towers adjacent to the project site provide suitable nesting habitat for raptors; however, the site provides low to marginal suitable foraging habitat for raptor species. Bird species observed on the site were common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), and red-tailed hawk (*Buteo jamaicensis*). No active nests of any of these or other avian species were observed.

Amphibians require standing or flowing water for part or all of their life cycle. Ponds, seasonal pools, and drainages provide suitable habitat for common amphibian species. The project site does not contain any ponds or drainages. No amphibian species were observed during the field survey.

Most reptiles prefer a variety of habitats in which to breed and forage. They typically inhabit small burrows, which they also use as a refuge from differing ambient temperatures and for predator avoidance. Due to a history of ongoing disking practices for weed or fire control, the project site provides marginally suitable habitat for reptile species. One reptile, common side-blotched lizard (*Uta stansburiana*), was observed during the field survey.

The grassland that dominates the project site is expected to be used by various small mammal species that are often associated grassland, such as pocket gophers (*Thomomys bottae*), deer mice (*Peromyscus maniculatus*), house mouse (*Mus Musculus*), and western harvest mouse (*Reithorodontomys megalotis*). However, intensive practices, such as disking, limits their abundance within these areas. Very few small mammal burrows were observed throughout the area

surveyed. California ground squirrel burrows and burrow complexes were found to be the most abundant burrows on the project site. The highest concentrations were along road margins and the east edge of the project site where dirt spoil piles have been illegally dumped over time. One mammal species, California ground squirrel, was observed during the survey.

Coyotes and foxes (*Vulpes* spp.) may occasionally use the project site to hunt for small mammals. The federally endangered and state threaten San Joaquin kit fox may also occur on occasion but is unlikely to be resident on the site. San Joaquin kit fox is discussed in more detail in **Section 4.4.2 Local Setting**.

Appendix C provides a list of all wildlife species observed during the site visit.

Sensitive Natural Communities

Local, state, and federal agencies regulate special status species and other sensitive biological resources and require an assessment of their presence or potential for presence to be on-site prior to the approval of proposed development on a property. These species are considered threatened enough to warrant some level of protection. Appendix C discusses sensitive biological resources observed within the project area and evaluates the potential for the project area to support other sensitive biological resources.

Sensitive vegetation communities are defined as follows:

- Vegetation alliances on CDFW's California Natural Community List with a state rank of S1, S2, or S3 (CDFW 2023a)
- Vegetation communities or habitats listed in the California Natural Diversity Database (CNDDB) (CDFW 2023b)

Special status plant and wildlife species are defined as any of the following:

- Designated as either rare, threatened, or endangered by CDFW, USFWS, or the National Marine Fisheries Service and protected under either the California Endangered Species Act (CESA) (California Fish and Game Code [CFGF] Section 2050 et seq.) or the Federal Endangered Species Act (FESA) (16 U.S. Code [U.S.C.] Section 1531 et seq.), or meets the California Environmental Quality Act (CEQA) definition for endangered, rare, or threatened (California Code of Regulations, Title 14, Section 15380[b], [d])
- California Species of Special Concern (SSC) as designated by CDFW (2023b)
- Vertebrate species that are Fully Protected species, as described in the CFGC, or candidate species being considered or proposed for listing under these same acts
- Of expressed concern to resource/regulatory agencies or local jurisdictions. This includes plants included on the CDFW Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2024), as well as species with a California Rare Plant Rank of 1, 2, 3, or 4 in the

CNPS Inventory of Rare and Endangered Plants of California (CNPS 2023a). Plants included in the CNPS Inventory are classified as follows:

- List 1A: Plants presumed extinct in California; List 1B: Plants rare, threatened, or endangered in California and elsewhere
- List 2: Plants rare, threatened, or endangered in California, but more common elsewhere
- List 3: Plants about which we need more information (a review list)
- List 4: Plants of limited distribution (a watch list)

Surface Hydrology and Jurisdictional Waters

There are no surface water bodies (creeks, streams, or rivers) within the project area. Surface water flow is unlikely to exist within these local drainages unless during heavy precipitation events. As part of the requirements of the Clean Water Act (CWA), beneficial uses for surface and ground waters must be identified in the Central Valley Regional Water Quality Control Board's Tulare Lake Basin Water Quality Control Plan. Because the project site contains no surface water bodies, there are no surface water beneficial uses associated with the project area.

Wildlife Movement Corridors

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration and dispersal of terrestrial animal species. Wildlife corridors contribute to population viability by ensuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., wildfires). Small patches of habitats that serve to connect larger blocks of habitat can often serve as movement corridors and help reduce the adverse effects of habitat fragmentation. Such linkages may be continuous habitat or discrete habitat islands that function as steppingstones for dispersal. Given the expanse of open agricultural lands surrounding the project site, the site itself is not considered an important linkage between larger open space areas that serve as wildlife habitat. The project site and immediate area are not recognized as an important regional migratory corridor by the County of Kern or state resource agencies.

Local Setting

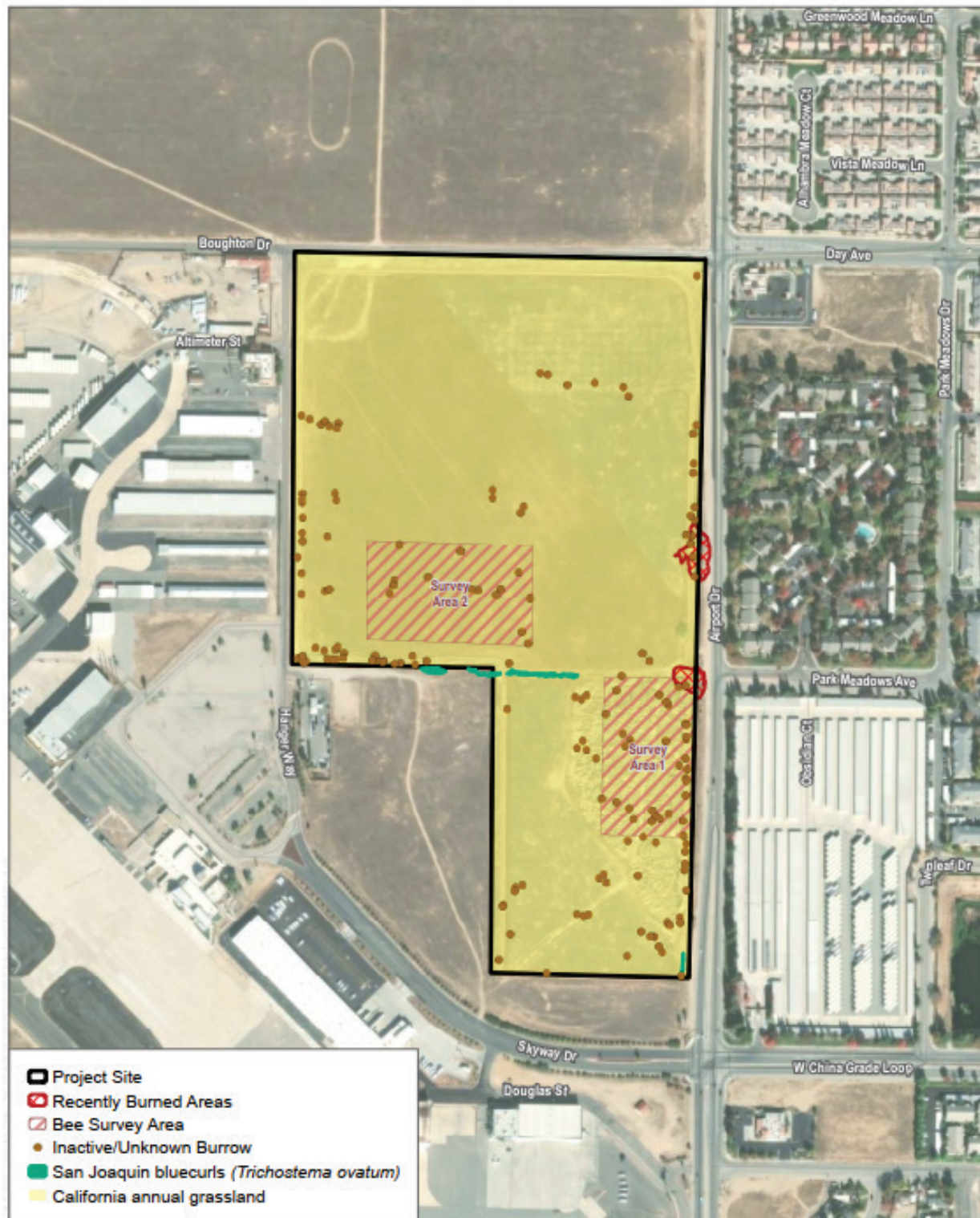
As previously stated, the project site is located on approximately 49.05 acres and is composed of two privately owned parcels, in the central portion of unincorporated Kern County, California. The project vicinity is characterized by industrial and commercial uses (distribution, storage, and shipping centers), transportation, vacant land, and residential uses to the east of the project site.

Natural Communities

Approximately 49.05 acres of the project site is considered non-native grassland, as shown in **Figure 4.4-1**. Non-native grasslands general habitat is grassland that is dominated by non-native species. These grasslands typically occur in areas with a history of disturbance. Non-native grassland was the only land cover type mapped within the project site, as no native vegetation communities, including any sensitive vegetation communities were identified within the project site during the 2023 survey.

Some species associated with non-native grassland include wild oats (*Avena* spp.), bromes (*Bromus* spp.), and barleys (*Hordeum* spp.). This land cover type is not given a rarity ranking by CDFW (2023a) or CNPS (2023a) because it is a non-native plant community that is widespread; therefore, it is not considered sensitive.

Figure 4.4-1: Biological Resources



Source: Appendix C

Observed Wildlife Species

Four common bird species and one common mammal species were audibly or visually detected, or observed by presence of sign (e.g., scat, burrows/dens, prey remains, whitewash), during the on-site survey. As noted above, the project site is dominated by non-native grassland, which is typically used by common wildlife species.

The mature trees along the residences and power lines and towers adjacent to the project site provide suitable nesting habitat for raptors; however, the site provides low to marginal suitable foraging habitat for raptor species. Bird species observed on the site were common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), western kingbird (*Tyrannus verticalis*), and red-tailed hawk (*Buteo jamaicensis*). No active nests of any of these or other avian species were observed.

Amphibians require standing or flowing water for part or all of their life cycle. Ponds, seasonal pools, and drainages provide suitable habitat for common amphibian species. The project site does not contain any ponds or drainages. No amphibian species were observed during the field survey.

Most reptiles prefer a variety of habitats in which to breed and forage. They typically inhabit small burrows, which they also use as a refuge from differing ambient temperatures and for predator avoidance. Due to a history of ongoing disking practices for weed or fire control, the project site provides marginally suitable habitat for reptile species. One reptile, common side-blotched lizard (*Uta stansburiana*), was observed during the field survey.

The grassland that dominates the project site is expected to be used by various small mammal species that are often associated grassland, such as pocket gophers (*Thomomys bottae*), deer mice (*Peromyscus maniculatus*), house mouse (*Mus Musculus*), and western harvest mouse (*Reithorodontomys megalotis*). However, intensive practices, such as disking, limits their abundance within these areas. Very few small mammal burrows were observed throughout the area surveyed. California ground squirrel burrows and burrow complexes were found to be the most abundant burrows on the project site. The highest concentrations were along road margins and the east edge of the project site where dirt spoil piles have been illegally dumped over time. One mammal species, California ground squirrel, was observed during the survey.

Coyotes and foxes (*Vulpes* spp.) may occasionally use the project site to hunt for small mammals. The federally endangered and state threaten San Joaquin kit fox may also occur on occasion but is unlikely to be resident on the site. San Joaquin kit fox is discussed in more detail below. Appendix C provides a list of all wildlife species observed during the site visit.

Candidate, Sensitive, or Special Status Biological Resources

Special status species are defined as those plants and wildlife that, because of their recognized rarity or vulnerability to various causes of habitat loss or population decline, are recognized by federal, state, or other agencies as under threat from human-associated developments. Some of these species receive specific protection that is defined by federal or state endangered species legislation. Others have been designated as special status on the basis of adopted policies and expertise of state resource agencies or organizations with acknowledged expertise, or policies adopted by local

governmental agencies such as counties, cities, and special districts to meet local conservation objectives. Special status species include:

- Species listed or proposed for listing as threatened or endangered, or are candidates for possible future listing as threatened or endangered, under the FESA or the CESA;
- Species that meet the definitions of rare or endangered under CEQA Guidelines Section 15380;
- All of the plants constituting California Rare Plant Ranks 1B and 2A meet the definitions of Section 1901, Chapter 10 (Native Plant Protection Act) or Sections 2062 and 2067 (CESA) of the CFGC, and are eligible for state listing;
- Species covered under an adopted natural community conservation plan (NCCP) or habitat conservation plan (HCP);
- Wildlife designated by CDFW as “species of special concern” or “special animals;”
- Wildlife “fully protected” in California (CFGC Sections 3511, 4700, and 5050); and, Wildlife species protected as “fur-bearing mammals” (CFGC Section 4000 et seq.).

Sensitive natural communities are designated as such by various resource agencies, such as the CDFW, or in local policies and regulations, and are generally considered to have important functions or values for wildlife and/or are recognized as declining in extent or distribution and are considered threatened enough to warrant some level of protection. For example, many local agencies in California consider protection of oak woodlands important, and federal, state, and most local agencies also consider wetlands and riparian habitat as sensitive communities. CDFW tracks communities it believes to be of conservation concern through its List of California Terrestrial Communities and the CNDDDB, and these communities are typically considered special status for the purposes of CEQA analysis. The potential for each special status species to occur in the project site was evaluated according to the following criteria:

- **No Potential.** Habitat on and adjacent to the site is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime), and species would have been identifiable on the site if present (e.g., oak trees). Protocol surveys (if conducted) did not detect species.
- **Low Potential.** Few of the habitat components meeting the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) are present, and/or the majority of habitat on and adjacent to the site is unsuitable or of very poor quality. The species is not likely to be found on the site. Protocol surveys (if conducted) did not detect species.
- **Moderate Potential.** Some of the habitat components meeting the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) are present, and/or only some of the habitat on or adjacent to the site is unsuitable. The species has a moderate probability of being found on the site.

- **High Potential.** All the habitat components meeting the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime) are present and/or most of the habitat on or adjacent to the site is highly suitable. The species has a high probability of being found on the site.
- **Present.** Species is observed on the site or has been recorded (e.g., CNDDDB, other reports) on the site recently (within the last 5 years).

Most avian species are afforded certain protections by the Migratory Bird Treaty Act (MBTA) and CFGC Sections 3500 through 3516. However, many of these species, including some raptors, are common and are not considered to be of special status on the basis of other regulations.

Plants

Focused plant surveys were not conducted following the CNPS's Botanical Survey Guidelines, CDFW's Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities, or USFWS's General Rare Plant Survey Guidelines. However, habitat characteristics present with the project site were evaluated to determine the potential to support special status plant species. All plant species encountered during the field survey were identified to subspecies or variety, if applicable, to determine sensitivity status.

There are a number of special status plant species known to occur within the project vicinity. Priority special status plant species were reviewed during the database searches described above. Habitat suitability was evaluated for special status species based on their potential to occur based on the presence of associated habitat for each species, elevation, and soils present on the project site.

Based on the habitat suitability analysis, of the eight special status plant species that have been documented within the Oildale quadrangle associated with the project site, none have potential to occur on the site based on habitat suitability, soils, topography, and lack of previous documented occurrences of the species on or adjacent to the site. In particular, ongoing disking precludes these species from occurring on the site. Special status plant species documented within the Oildale quadrangle associated with the Project and their potential to occur on the project site are detailed in **Table 4.4-1**. As stated above, 27 plant species were observed during the site survey, of which none are considered special status by any regulatory agency. The list of plant species identified during the survey is provided in Appendix C.

Table 4.4-1: Special Status Plant Species and Potential to Occur on Project Site

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Allium howellii var. howellii	Howell's onion	None/None/4.3	Valley and foothill grassland; Clay (sometimes), Serpentine (sometimes)/perennial bulbiferous herb/Mar–Apr/165–7,220	Low potential to occur. Annual disking of the field has greatly reduced the potential for this species to occur.
Astragalus hornii var. hornii	Horn's milk-vetch	None/None/1B.1	Meadows and seeps, playas; lake margins, alkaline/annual herb/May–Oct/197–2, 785	Not expected to occur. Meadows, seeps, playas are not present within the project site.
Atriplex tularenis	Bakersfield smallscale	None/SE/1A	Chenopod scrub/annual herb/June–Oct/295–655	Absent. This species was not observed on the project site during a botanical focused survey in June 2024. Annual disking of the field has greatly reduced the potential for this species to occur.
Azolla microphylla	Mexican mosquito fern	None/None/4.2	Marshes and swamps (ponds, slow water)/annual/perennial herb/Aug/100–330	Not expected to occur. The project site does not provide suitable habitat, marshes and swamps, for this species.
Calochortus striatus	Alkali mariposa-lily	None/None/1B.2	Chaparral, Chenopod scrub, Meadows and seeps, Mojavean desert scrub; Alkaline, Mesic/perennial bulbiferous herb/Apr– June/230–5,235	Not expected to occur. Meadows, seeps, chaparral and chenopod scrub are not present within the project site. Additionally, this species was not observed on the project site during a botanical focused survey in June 2024. Annual disking of the field has greatly reduced the potential for this species to occur.
Chloropyron molle spp. hispidum	Hispid bird's-beak	None/None/1B.1	Meadows and seeps, playas, valley and foothill grassland; alkaline/annual herb (hemiparasitic)/June–Sep/3–510	Absent. This species was not observed on the project site during a botanical focused survey in June 2024. Annual disking of the field has greatly reduced the potential for this species to occur.

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Clarkia exilis	Slender clarkia	None/None/4.3	Cismontane woodland/annual herb/Apr–May/395-3280	Not expected to occur. The project site does not provide suitable habitat, cismontane woodland, for this species. Annual disking of the field has greatly reduced the potential for this species to occur.
Convolvulus simulans	Small-flowered morning-glory	None/None/4.2	Chaparral (openings), Coastal scrub, Valley and foothill grassland; Clay, Seeps, Serpentine/annual herb/Mar–July/100–2,430	Absent. This species was not observed on the project site during a botanical focused survey in June 2024. Annual disking of the field has greatly reduced the potential for this species to occur.
Delphinium recurvata	Recurved larkspur	None/None/1B.2	Chenopod scrub, Cismontane woodland, Valley and foothill grassland; Alkaline/perennial herb/Mar–June/10–2,590	Absent. This species was not observed on the project site during a botanical focused survey in June 2024. Annual disking of the field has greatly reduced the potential for this species to occur.
Diplacus pictus	Calico monkeyflower	None/None/1B.2	Broadleafed upland forest, Cismontane woodland; Disturbed areas, Granitic/annual herb/Mar–May/330–4,690	Not expected to occur. The project site does not provide suitable habitat, upland forest, cismontane woodland, for this species.
Eremalche parryi spp. kernensis	Kern mallow	FE/None/1B.2	Chenopod scrub, Pinyon and juniper woodland, Valley and foothill grassland; Clay (sometimes), Dry, Openings, Sandy (sometimes)/annual herb/Jan(Feb)Mar–May/230–4,230	Low potential to occur. Annual disking of the field has greatly reduced the potential for this species to occur.

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Eriastrum hooveri	Hoover's eriastrum	None/None/4.2	Chenopod scrub, pinyon and juniper woodland, valley and foothill grassland; sometimes gravelly/annual herb/(Feb)Mar–July/ 164–3,000	Absent. This species was not observed on the project site during a botanical focused survey in June 2024. Annual disking of the field has greatly reduced the potential for this species to occur.
Eriogonum gossypinum	Cottony buckwheat	None/None/4.2	Chenopod scrub, valley and foothill grassland; clay/annual herb/Mar–Sep/328–1,800	Absent. This species was not observed on the project site during a botanical focused survey in June 2024. Annual disking of the field has greatly reduced the potential for this species to occur.
Eschscholzia lemmonii spp. kernensis	Tejon poppy	None/None/1B.1	Chenopod scrub, Valley and foothill grassland/annual herb/(Feb)Mar–May/525–3280	Low potential to occur. Annual disking of the field has greatly reduced the potential for this species to occur.
Goodmania luteola	Golden goodmania	None/None/4.2	Meadows and seeps, Mojavean desert scrub, Playas, Valley and foothill grassland; Alkaline (sometimes), Clay (sometimes)/annual herb/Apr–Aug/65–7,220	Not expected to occur. The project site does not provide suitable habitat, meadows and seeps, for this species.
Hesperevax caulescens	Hogwallow starfish	None/None/4.2	Valley and foothill grassland (mesic clay), Vernal pools (shallow); Alkaline (sometimes)/annual herb/Mar–June/0–1,655	Not expected to occur. The project site does not provide suitable habitat, vernal pools, for this species.
Horedeum intercedens	Vernal barley	None/None/3.2	Coastal dunes, Coastal scrub, Valley and foothill grassland (depressions, saline flats), Vernal pools/annual herb/Mar–	Not expected to occur. The project site does not provide suitable habitat for this species.

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			June/15–3280	
Imparvata brevifolia	California satintail	None/None/2B.1	Chaparral, coastal scrub, meadows, and seeps, Mojavean desert scrub, riparian scrub; mesic/ perennial rhizomatous herb/Sep–May/0–3,985	Not expected to occur. The project site does not provide suitable habitat for this species.
Lasthenia ferrisiae	Ferris' goldfields	None/None/4.2	Vernal pools (alkaline, clay)/annual herb/Feb– May/65–2295	Not expected to occur. The project site does not provide suitable habitat, vernal pools, for this species.
Layia leucopappa	Comanche Point layia	None/None/1B.1	Chenopod scrub, Valley and foothill grassland/annual herb/Mar– Apr/330–1150	Low potential to occur. Annual disking of the field has greatly reduced the potential for this species to occur.
Mongolia cogdonii	San Joaquin woolly-threads	FE/None/1B.2	Chenopod scrub, valley and foothill grassland (sandy)/annual herb/Feb– May/197–2,620	Not expected to occur. The project site does not contain the necessary subalkaline sandy soils required by San Joaquin woolly-threads. “San Joaquin woolly- threads is essentially restricted to sandy soils, and thus was always somewhat limited distribution (Taylor 1993).” In addition, there are no observations within 5-miles and would consider this potential to occur if the adjacent properties had any occurrences of this species to have a seed bank present.
Navarretia setiloba	Piute Mountains navarretia	None/None/1B.1	Cismontane woodland, Pinyon and juniper woodland, Valley and foothill grassland; Clay (sometimes), Gravelly (sometimes), Loam (sometimes)/annual herb/Apr–July/935–6,890	Absent. This species was not observed on the project site during a botanical focused survey in June 2024. Annual disking of the field has greatly reduced the potential for this species to occur. Additionally, the project site is outside the known elevation range for this species.

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Opuntia basilaris var. treleasei	Bakersfield cactus	FE/SE/1B.1	Chenopod scrub, cismontane woodland, valley and foothill grassland; sandy or gravelly/perennial stem succulent/Apr–May/328–4,755	Absent. This species was not observed on the project site during the survey effort. Annual disking of the field has greatly reduced the potential for this species to occur.
Stylocline citroleum	Oil neststraw	None/None/1B.1	Chenopod scrub, Coastal scrub, Valley and foothill grassland; Clay/annual herb/Mar– Apr/165–1,310	Low potential to occur. Annual disking of the field has greatly reduced the potential for this species to occur.
Stylocline masonii	Mason's neststraw	None/None/1B.1	Chenopod scrub, Pinyon and juniper woodland; Sandy/annual herb/Mar–May/330–3,935	Not expected to occur. The project site does not provide suitable habitat for this species.
Tortula californica	California screw moss	None/None/1B.2	Chenopod scrub, Valley and foothill grassland; Sandy/moss/N.A./35–4,790	Not expected to occur. The project site does not contain suitable soils for this species.
Trichostema ovatum	San Joaquin bluecurls	None/None/4.2	Chenopod scrub, valley and foothill grassland/ annual herb/(Apr–June)July–Oct/213–1,045	Occurs. Several small populations were observed along access roads and the earthen ditches around the site. None were observed within the larger areas subject to annual disking of the project site.

Status Legend:

FE: Federally listed as endangered

SE: State-listed as endangered California Rare Plant Rank

1B: Plants rare, threatened, or endangered in California and elsewhere

2B: Plants rare, threatened, or endangered in California but more common elsewhere

4: Watch List: Plants of limited distribution

.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 Moderately threatened in California (20%–80% occurrences threatened / moderate degree and immediacy of threat)

Wildlife

To determine the potential for special status wildlife to occur on the project site, a list of wildlife species through a query of the CNDDB was compiled. Two species were determined to have some potential to occur based on habitat suitability and previously documented occurrences of the species in the project vicinity. Other wildlife species were rejected from consideration based on factors such as lack of suitable aquatic or terrestrial habitat, or the site being outside of the species' known range. In addition, many special status wildlife species that occur in the area are avian species that may occasionally only fly over or forage on the site but are not expected to nest on the site.

Table 4.4-2 lists the potential for occurrence of the special status wildlife species that are recorded within the Oildale U.S. Geological Survey quadrangle, where the Project is located. A cumulative list of wildlife species is included in Appendix C.

Table 4.4-2: Special Status Wildlife Species and Potential to Occur on Project Site

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Invertebrates				
<i>Bombus crotchii</i>	Crotch's bumble bee	None/None	Open grassland and scrub communities supporting suitable floral resources.	Low to moderate potential to occur. Open grassland habitat is present, but no known floral resources, such as host plants, are present. Limited nectar producing plants occur on-site. Several California ground squirrel burrows were observed which could potentially be used as a nest site. There is one occurrence within approximately 2.5 miles of the project site per the California Natural Diversity Database (CNDDB) (CDFW 2023b).
<i>Branchinecta lynchi</i>	Vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats.	Not expected to occur. There are no vernal pools on the project site. No CNDDB records have been recorded of this species within 5 miles of the project site (CDFW 2023b).
<i>Danaus plexippus</i>	Monarch butterfly	Candidate/None	Wind-protected tree groves with nectar sources and nearby water sources.	Not expected to occur. No suitable habitat present. No wind-protected tree groves with nectar sources and nearby water sources. No milkweed (<i>Asclepias</i> spp.) were observed on-site during a botanical focused survey conducted in June 2024. No CNDDB records have been recorded of this species within 5 miles of the project site (CDFW 2023b).
Amphibians				
<i>Spea hammondi</i>	Western spadefoot	None/SSC	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub,	Not expected to occur. No suitable habitat present on the project site. No CNDDB records have been recorded of this species

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			valley–foothill woodlands, pastures, and other agriculture.	within 5 miles of the project site (CDFW 2023b).
Reptiles				
Anniella grinnelli	Bakersfield legless lizard	None/SSC	Southern San Joaquin Valley. Known from two disjunct areas: the east side of the Carrizo Plain and portions of the city limits of Bakersfield. Often found underneath leaf litter, rocks, and logs (CDFW 2023b).	Not expected to occur. The project site lacks suitable habitat required for this species. In addition, there are no occurrences within approximately 5 miles of the project site (CDFW 2023b).
Arizona elegans occidentalis	California glossy snake	None/SSC	Arid scrub, rocky washes, grasslands, chaparral, open areas with loose soil.	Not expected to occur. No suitable habitat present on the project site. In addition, there are no occurrences within approximately 5 miles of the project site (CDFW 2023b).
Gambelia sila	Blunt-nosed leopard lizard	FE/FP, SE	Sparsely vegetated alkali and desert scrubs, including semi-arid grasslands, alkali flats, and washes.	Not expected to occur. The project site is regularly maintained for weed or fire protection purposes by annual disking. In addition, the surrounding areas have been regularly disked for fire and weed abatement from the project site approximately 0.5-mile north to Merle Haggard Rd. Because of the annual disturbances and alteration to the landscape from annual maintenance, it is considered that this species is not expected to occur. Small mammal burrows observed on the site are disked annually for weed and fire abatement. The closest and most recent documentation of this species is from 1992 and is approximately 3.25 miles north of the project site (CDFW 2023b).
Birds				

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Athene cunicularia (burrow sites and some wintering sites)	Burrowing owl	BCC/SSC	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows.	Moderate potential to occur. The project site provides suitable habitat where this species may forage or den. Several California ground squirrel burrows and complexes were observed throughout the project site, most in the east edge of the site where dirt spoil piles have accumulated over the years. Although no sign of presence was observed during survey of the site. The closest documented record of this species is within 1.2 miles of the project site (CDFW 2023b).
Buteo swainsoni (nesting)	Swainson's hawk	None/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture.	Low potential to occur. No suitable nesting habitat on the project site. Several large trees are associated with the residences to the east. The project site provides marginally suitable foraging for this species. One historical occurrence from 1935 was recorded within the vicinity of the Kern River, approximately 3.25 miles south of the project site (CDFW 2023b).
Coccyzus americanus occidentalis (nesting)	Western yellowbilled cuckoo	FT/SE	Nests in dense, wide riparian woodlands and forest with well- developed understories.	Not expected to occur. No suitable nesting or foraging habitat is present. No CNDDB records have been recorded of this species within 5 miles of the project site (CDFW 2023b).
Empidonax traillii extimus (nesting)	Southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration.	Not expected to occur. No suitable nesting or foraging habitat is present. No CNDDB records have been recorded of this species within 5 miles of the project site (CDFW 2023b).
Gymnogyps californianus	California condor	FE/FP, SE	Nests in rock formations, deep caves, and occasionally in cavities in giant sequoia trees	Not expected to occur. No suitable nesting or foraging habitat is present. No CNDDB records have been recorded of this species

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
			(Sequoiadendron giganteus); forages in relatively open habitats where large animal carcasses can be detected.	within 5 miles of the project site (CDFW 2023b).
Mammals				
Aeorestes cinereus	Northern hoary bat	None/None	Forest, woodland riparian, and wetland habitats; also, juniper scrub, riparian forest, and desert scrub in arid areas; roosts in tree foliage and sometimes cavities, such as woodpecker holes.	Not expected to occur. No suitable nesting or foraging habitat is present. No CNDDDB records have been recorded of this species within 5 miles of the project site (CDFW 2023b).
Eumops perotis californicus	Western mastiff bat	None/SSC	Chaparral, coastal and desert scrub, coniferous and deciduous forest, and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels.	Not expected to occur. No suitable roosting or foraging habitat is present. No CNDDDB records have been recorded of this species within 5 miles of the project site (CDFW 2023b).
Perognathus inornatus	San Joaquin pocket mouse	None/None	Open grassland and scrub areas on fine textured soils.	Not expected to occur. The project site is regularly maintained, providing low-quality habitat for this species. No suitable burrows for were observed. In addition, there are no occurrences within approximately 5 miles of the project site (CDFW 2023b).
Sorex ornatus relictus	Buena Vista Lake ornate shrew	FE, BCC/SSC	Marshes, wetlands, streams, and sloughs along lake basins in southern San Joaquin Valley; historical occurrences include Buena Vista, Tulare, and Kern Lakes; distribution poorly known.	Not expected to occur. No suitable habitat present on the project site. No CNDDDB records have been recorded of this species within 5 miles of the project site (CDFW 2023b).
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils.	Not expected to occur. The project site is regularly maintained, providing low-quality habitat for this species. Although CNDDDB records indicate presence within 0.1 miles of the site, no burrows suitable for this species was observed on-site. In addition,

Scientific Name	Common Name	Status (Federal/State/California Rare Plant Rank)	Primary Habitat Associations/ Life Forms/ Blooming Period/ Elevation Range (feet)	Potential to Occur
				the CNDDDB record is from 1900 (CDFW 2023b).
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	FE/ST	Grasslands and scrublands, including those that have been modified; oak woodland, alkali sink scrubland, vernal pool, and alkali meadow.	Moderate to high potential to occur. The project site provides suitable habitat where this species may forage or den. Several California ground squirrel burrows and complexes were observed throughout the project site, most in the east edge of the site where dirt spoil piles have accumulated over the years. Although no sign of presence of San Joaquin kit fox was observed during the survey of the site, several historical records of this species have been documented within 0.1 miles to 5 miles from the project site (CDFW 2023b).

Status Abbreviations:

FE: Federally Endangered

FT: Federally Threatened

BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern

SSC: California Species of Special Concern

FP: California Fully Protected Species

SE: State Endangered

ST: State Threatened

Burrowing Owl

Burrowing owl is a California SSC. With a relatively wide-ranging distribution throughout the west, burrowing owls are considered to be habitat generalists. In California, burrowing owls are yearlong residents of open, dry grassland and desert habitats, and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats. Preferred habitat is typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils.

The presence of burrows is the most essential component of burrowing owl habitat because they are required for nesting, roosting, cover, and catching prey. In California, western burrowing owls most commonly live in burrows created by California ground squirrels. Burrowing owls may occur in human-altered landscapes, such as agricultural areas, ruderal grassy fields, vacant lots, and pastures, if the vegetation structure is suitable (i.e., open and sparse); useable burrows are available; and foraging habitat occurs in close proximity. Debris piles, riprap, culverts, and pipes can be used for nesting, secondary shelter sites, and roosting.

Potentially suitable burrowing owl burrows (burrow openings approximately 4 inches in diameter or greater) or burrow complexes were observed during the survey effort (**Figure 4.4-1**). However, no burrowing owls or burrowing owl sign (whitewash, pellets, feathers, or prey remains) were observed during the survey. Nevertheless, burrowing owls could move onto the site between the time of the site survey and proposed ground disturbance activities.

San Joaquin Kit Fox

San Joaquin kit fox is in the family Canidae and is a year-round resident of arid and semi-arid regions of the San Joaquin Valley and surrounding valleys, Sierra Nevada foothills, and Coast Ranges from northern Santa Barbara and Ventura Counties north to Contra Costa and San Joaquin Counties. This species lives in annual grasslands or grassy open habitats with scattered shrubby vegetation. It requires loose-textured sandy soils for burrowing and a suitable prey base of rodents. Kit foxes in the northern portion of the range are mostly associated with annual grassland and valley oak woodland. Where kit foxes are found in annual grassland, such as in surrounding valleys, they are generally associated with brome grasses, fescue (*Festuca* spp.), wild oats (*Avena fatua*), barley (*Hordeum* spp.), and filaree (*Erodium* spp.).

As a federally listed endangered and state-listed threatened species, San Joaquin kit fox is protected by federal and state statutes (FESA and CESA). To determine presence/absence of kit fox in the project region, USFWS established the San Joaquin Kit Fox Survey Protocol for the Northern Range (Northern Range Protocol), further described in Appendix C. The Northern Range Protocol calls for an early evaluation of a site and its potential to support San Joaquin kit fox to determine whether protocol surveys are necessary. The entire project site was walked to assess the site and the potential for use by San Joaquin kit fox.

During the survey, several burrows meeting the minimum size criteria (openings 4 inches in diameter or greater) were identified and examined (**Figure 4.4-1**). According to the Northern Range Protocol, burrows were identified as being either natal dens, active dens, or potential dens. “Natal dens” are dens at which the presence of pups was confirmed either by observation or sign such as

scat and tracks. “Active dens” refers to dens presumed to be occupied at the time of examination, or to have been recently occupied, due to sign such as recent digging, tracks, and/or fresh scat. “Potential dens” include those that were judged to be of a particular size, but that were not recently active, as well as dens that were not confirmed to have been excavated by the species identified due to a lack of definitive sign. None were confirmed to be San Joaquin kit fox natal dens or active dens. Furthermore, none of these burrows were determined to be occupied or otherwise used by kit fox based on the lack of sign (e.g., scat, prey remains, digging, claw marks) of kit fox.

Because the number of kit foxes can vary greatly from year to year, and successful dispersal may allow individuals to occupy areas between established populations, it is possible that transient individual San Joaquin kit foxes could occur intermittently on the project site during foraging or dispersal events.

Crotch’s Bumble Bee

Crotch’s bumble bee (*Bombus crotchii*) is a state candidate for listing as threatened. This species ranges throughout much of central and Southern California, along the central and Southern California coasts, through the Central Valley, and in the surrounding foothills. However, it now appears to be absent from much of its former range, and its population appears to have declined drastically, especially in its former stronghold in the Central Valley.

Crotch’s bumble bee occurs in open grassland and scrub communities supporting suitable floral resources. Data from a variety of resources states that Crotch’s bumble bee is most commonly associated with the species from the following families, in descending order based on number of observations: *Fabaceae*, *Apocynaceae*, *Asteraceae*, *Lamiaceae*, and *Boraginaceae*. The genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* were cited as example food plants (Appendix C). The species nests primarily underground and may be reliant on small mammal burrows. Little is known about winter hibernacula, but the species is presumed to rely on microhabitats for overwintering similar to those of other bumble bees, including loose disturbed soil, leaf litter, and other debris.

Crotch’s bumble bee has a low to moderate potential to occur within the study area, as it contains open grassland; however, there is limited floral resources including the genera *Phacelia*, *Clarkia*, *Eriogonum*, and *Eschscholzia* species present due to annual disking of the site for fire and weed abatement. Crotch’s bumble bee is a generalist forager and could forage anywhere within the study area where suitable floral resources are present. Although the study area supports limited suitable floral resources, the actual area occupied by specific resources with potential to support nesting for the species is likely a much smaller portion of the entire study area. Nesting is primarily located underground in abandoned holes made by ground squirrels, mice, and rats, but may be aboveground in abandoned bird nests or empty cavities.

Surveys were conducted within two 3-acre parcels representing approximately 10% of the project site (**Figure 4.4-1**). Surveys were conducted for one hour per 3-acre parcel. During the survey, several burrows (openings 4 inches in diameter or greater) were identified and examined (**Figure 4.4-1**). Additionally, small mammal burrows observed throughout the project site during a botanical pass were also evaluated for presence of nesting Crotch’s bumble bee. None were

confirmed to be used by Crotch's bumble bee for nesting during a site-specific survey conducted in June 2024. Furthermore, because the survey was conducted later in the nesting season, many of the spring blooming floral species have died. Late spring/summer floral flowering species were sparse on-site. Nevertheless, there is a low to moderate potential for this species to occur on the project site.

Sensitive Natural Communities

Sensitive natural communities and habitats are defined by the CDFW as those natural communities that have a reduced range and/or are imperiled as a result of residential and commercial development, agriculture, energy production and mining, or an influx of invasive and other problematic species. Vegetation mapping was conducted during the initial habitat assessment based on the California Natural Community List (CDFW 2023a) and the web-based version of the Manual of California Vegetation (CNPS 2023b), which use the scientific name of the dominant species in that alliance as the alliance name. Both are based on the Manual of California Vegetation, Second Edition. No native vegetation communities, including any sensitive vegetation communities, were identified within the project site.

Critical Habitat

Under FESA, to the extent feasible, the USFWS and National Marine Fisheries Service (NMFS) are required to designate critical habitat for endangered and threatened species. Critical habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated critical habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Designated critical habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Critical habitat delineates all suitable habitat, occupied or not, essential to the survival and recovery of the species.

As further described below, formal wildlife movement studies were not conducted for the project site. Given the expanse of open agricultural lands surrounding the project site, the site itself is not considered an important linkage between larger open space areas that serve as wildlife habitat; in addition, the project site and immediate area are not recognized as an important regional migratory corridor by the County of Kern or state resource agencies. Therefore, no critical habitat was identified within the project site.

Areas of Critical Environmental Concern

Areas of Critical Environmental Concern are designated areas by the Bureau of Land Management where special management is provided for fish and wildlife or other natural resources. The project site is not located within or adjacent to any Areas of Critical Environmental Concern.

Aquatic Resources

There are no surface water bodies (creeks, streams, or rivers) within the project area, nor does the project site contain any ponds or drainages (**Figure 4.4-2**). Therefore, a formal evaluation of the

potential for jurisdictional waters of the United States and waters of the state, including wetlands, to occur on-site was not conducted. However, the habitat assessment did take into consideration all potential jurisdictional features that would need to be formally evaluated, such as vegetation communities dominated by hydrophytic vegetation and stream channels or other evidence of an ordinary high water mark within the project site. Connectivity to local water conveyance features to determine the discharge points and their connection to regional waterways was also considered to be formally evaluated.

Figure 4.4-2: USFWS National Wetlands Inventory

Source: Dudek, 2024

Wildlife Movement Corridors

Formal wildlife movement studies were not conducted for the project site. The site and immediate area are not recognized as an important regional migratory corridor by the County of Kern or state resource agencies. Although some animals may pass through or along the site during localized movement events in search of food or shelter, the location of the project site and surrounding developed areas to the east, south, and west pose as restrictions to movement. San Joaquin kit foxes are accustomed to urban settings and would not constrain their movement due to implementation of the Project.

4.4.3 Regulatory Setting

Federal, state, regional, and local biological resource policies and regulations applicable to the Project are identified below.

Federal

Federal Endangered Species Act of 1973 (16 U.S. Code 1531 through 1543)

The FESA (16 U.S.C. 1531 et seq.) was enacted to provide a means by which endangered and threatened species and the ecosystems on which they depend may be conserved. The FESA and the implementing regulations (50 Code of Federal Regulations [CFR] 17.1 et seq.) include provisions for the protection and management of federally listed threatened or endangered plants and animals and their critical habitats. Generally, the USFWS regulates upland and freshwater species, and the NMFS oversees provisions for protection of anadromous, marine, and estuarine species. Section 4 of the FESA requires the USFWS and/or NMFS to make determinations on whether any species should be listed as an endangered or threatened species and to designate critical habitat for endangered and threatened species (16 U.S.C. 1533). Critical habitat is defined in the FESA as an area occupied by a listed species with physical or geographical/biological features essential to the species conservation or locations not currently occupied by listed species which are essential to the species conservation. 50 CFR 424.02 Section 9 of the FESA (16 U.S.C. 1538, 50 CFR 17.21402 et seq.) prohibits the unauthorized take of any species that is listed as threatened or endangered under the FESA. Take that is incidental to and not the purpose of the carrying out of otherwise lawful activities may be permitted under Section 7 and Section 10 of the FESA.

Section 7 of the FESA requires federal agencies to consult with the USFWS and/or NMFS and obtain a biological opinion prior to carrying out any federal program or agency action that may adversely affect threatened or endangered species. The FESA Section 7 consultation process and biological opinion includes an evaluation of whether a federal project, including issuance of an incidental take permit (ITP) under FESA Section 10, is likely to jeopardize the continued existence and recovery of any endangered or threatened species or result in the destruction or adverse modification of critical habitat designated for the species. If a proposed federal action would result in take of a listed animal species or adverse modification of designated critical habitat, FESA Section 7 requires the USFWS to provide an incidental take statement that includes reasonable and prudent measures and terms and conditions implementing those measures, to minimize the effects

of such take. Compliance by the federal agency and any applicant with the incidental take statement exempts potential take or adverse critical habitat modification resulting from the proposed action from the prohibitions in Section 9 of the FESA.

Section 9 lists actions that are prohibited under the FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without special exemption. The definition of “harm” includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. “Harass” is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly.

Section 10 of the FESA provides mechanisms for authorizing otherwise prohibited take through the ITP process for a proposed action that does not involve a discretionary approval by a federal agency. Under Section 10(a) of the FESA, an ITP can be obtained provided the permit applicant submits to the USFWS a habitat conservation plan (often termed an HCP, or a multiple species habitat conservation plan when addressing more than one species) that satisfies Section 10(a)(2)(A) of the FESA, and provided the USFWS determines that the habitat conservation plan meets the issuance criteria of Section 10(a)(2)(B) of the FESA. Section 10(a)(2)(B) of the FESA requires the following criteria be met before the USFWS may issue an ITP: (1) The taking will be incidental; (2) The applicant will, to the maximum extent practicable, minimize and mitigate the impacts of such taking; (3) The applicant will ensure that adequate funding for the HCP and procedures to deal with unforeseen circumstances will be provided; (4) The taking will not appreciably reduce the likelihood of survival and recovery of the species in the wild; and (5) The applicant will ensure that other measures that the USFWS may require as being necessary or appropriate will be provided.

The USFWS is required to annually identify species that are candidates for FESA listing, including species that USFWS records indicate are subject to sufficient biological vulnerability and threats to support a proposal for listing but for which a proposal has not been published due to other listing priorities. The list of candidate species is intended to: (1) notify the public that species face survival threats; (2) provide advance knowledge of potential listings for consideration by environmental planners and developers; (3) provide information that may stimulate and guide conservation efforts; (4) request additional input regarding candidate species; and (5) request information for setting listing priorities (*Federal Register* 79, No. 234 at 72451, December 5, 2014). The USFWS and other federal agencies, including the Bureau of Land Management, may also informally identify sensitive species or species of concern. These species are not subject to FESA or other federal statutory protection but are considered by the USFWS and other agencies when evaluating the effects of a potential action or development resource management plans, including recovery plans under the FESA.

Migratory Bird Treaty Act (16 U.S. Code 703 through 712)

The MBTA (16 U.S.C. 703–712) includes provisions for the protection of migratory birds and prohibits the non-permitted take of most migratory birds. Take under the MBTA is defined as to “pursue, hunt, take, capture, kill, attempt to take, capture, or kill, possess, offer for sale, sell, offer

to barter, barter, offer to purchase, purchase, deliver for shipment, ship export, import, cause to be shipped, exported, or imported, deliver for transportation, transport or cause to be transported, carry or cause to be carried, or receive for shipment, transportation, carriage, or export, any part, nest, or egg of any such bird, or any product, whether or not manufactured” (16 U.S.C. 703(a)). Apart from certain limited exceptions, the USFWS has not implemented an ITP program for the MBTA.

Clean Water Act (33 U.S. Code §1251 et seq.)

The federal CWA was enacted to protect the nation’s waters. Section 404 of the CWA authorizes the Secretary of the Army, acting through the U.S. Army Corps of Engineers (USACE), to issue permits regulating the discharge of dredged or fill materials into “navigable waters at specified disposal sites.” Waters of the United States (WOUS) are defined in CFR, Title 33, Section 328.3, subdivision (a) to include navigable waters, perennial and intermittent streams, lakes, rivers, and ponds, as well as wetlands, marshes, and wet meadows. The CWA extends additional protection to certain sensitive aquatic habitats, including wetlands. Authorization to discharge dredge or fill materials into sensitive aquatic habitats requires that an applicant demonstrate the proposed activity represents the least environmentally damaging practicable alternative for the proposed project. A proposed discharge into federally regulated wetlands must also not result in a net loss of wetland functions or values (USACE, U.S. Department of Defense, and U.S. Environmental Protection Agency [EPA] 2008). All authorizations to discharge dredge or fill materials into WOUS must demonstrate that the proposed projects have been designed to avoid, minimize, and mitigate for all unavoidable effects on water of the United States.

The location and extent of WOUS are formally identified by the USACE through a jurisdictional delineation process applying technical criteria described in various guidance documents issued by the USACE, including the 1987 *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2) (USACE 2010), *A Field Guide to the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States* (Lichvar and McColley 2008), and in USACE Regulatory Guidance Letter No. 05-05 (USACE 2005).

The Section 404 permit program also applies to the dredge and fill of federal wetlands. Physically, a federal wetland must meet three specified criteria: (i) less permeable soils more likely to cause rainwater and other surface water flows to pond; (ii) seasonal ponding during specified types of rain events; and (iii) the presence of plants that are consistent with seasonally ponding. The extent to which a wetland area that meets the applicable criteria is federally jurisdictional; however, it is subject to considerable legal uncertainty.

On December 30, 2022, the EPA and the Department of the Army (the agencies) announced a final rule founded upon the pre-2015 definition of “waters of the United States,” updated to reflect consideration of Supreme Court decisions, the science, and the agencies’ technical expertise. The rule restores fundamental protections so that the nation will be closer to achieving Congress’ direction in the CWA that our waters be fishable and swimmable. It also ensures that our waters support recreation and wildlife. In this rule, consistent with the general framework of the 1986 regulations, the agencies interpret the term “waters of the United States” to include:

- traditional navigable waters, the territorial seas, and interstate waters (“paragraph (a)(1) waters”);
- impoundments of “waters of the United States” (“paragraph (a)(2) impoundments”);
- tributaries to traditional navigable waters, the territorial seas, interstate waters, or paragraph (a)(2) impoundments when the tributaries meet either the relatively permanent standard or the significant nexus standard (“jurisdictional tributaries”);
- wetlands adjacent to paragraph (a)(1) waters, wetlands adjacent to and with a continuous surface connection to relatively permanent paragraph (a)(2) impoundments, wetlands adjacent to tributaries that meet the relatively permanent standard, and wetlands adjacent to paragraph (a)(2) impoundments or jurisdictional tributaries when the wetlands meet the significant nexus standard (“jurisdictional adjacent wetlands”); and
- intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) that meet either the relatively permanent standard or the significant nexus standard (“paragraph (a)(5) waters”).

In addition, this rule codifies several exclusions from the definition of “waters of the United States,” including longstanding exclusions for prior converted cropland and waste treatment systems, and for features that were generally considered non-jurisdictional under the pre-2015 regulatory regime (EPA 2023).

State

California Endangered Species Act (California State Fish and Game Code §2050 et seq.)

The CESA (CFGF 2050 et seq.) is intended to conserve, protect, restore, and enhance any state-protected endangered or threatened species and its habitat and is implemented by the CDFW. CESA prohibits the unauthorized take of species listed as threatened or endangered under the act. Take under state law is defined as actions to “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill” a state-listed species (CFGF Section 86). The CFGF authorizes the take of endangered, threatened, or candidate species through an ITP that may be issued by the CDFW under Section 2081. Alternatively, an incidental take of CESA-listed species may be authorized under Section 2080.1, which allows the CDFW to find that an ITP issued under FESA is consistent with CEQA state take permit requirements.

CDFW also maintains lists of SSC. An SSC designation is administrative in nature and does not create a formal legal status. CDFW has indicated that SSC designations are intended to: (1) focus attention on at-risk animals identified by state, local, and federal entities; land managers; planners; consulting biologists; and others; (2) stimulate species research; and (3) stimulate conservation measures that would avoid a CESA listing.

California State Fish and Game Code §1600-1616

Sections 1600 to 1616 of the CFGC states that it is unlawful to “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake” without first notifying CDFW of that activity. If CDFW determines and informs the project proponent that the activity will not substantially adversely affect any existing fish or wildlife resources, the activity may be undertaken without further permitting. If CDFW determines that the proposed activity may substantially and adversely affect an existing fish or wildlife resource, a Lake or Streambed Alteration Agreement must be completed and approved by the CDFW, including reasonable measures necessary to protect the affected resources may be required prior to initiating the proposed activity (CFGC 1602).

State Waters (Water Code Section 13000 et seq.)

The Porter-Cologne Water Quality Control Act (Porter-Cologne) provides the State and Regional Boards with the authority to regulate discharges of waste to wetlands or other waters of the state. Section 13050(e) of the Water Code defines waters of the state to mean “any surface water or groundwater, including saline waters, within the boundaries of the state.” Discharges of waste have been construed to include fill, any material resulting from human activity, or any other discharge that may directly or indirectly impact waters of the state. All WOUS in California are also waters of the state. Non-federal waters, including wetlands or waters that the USACE has delineated as isolated from federally regulated rivers or streams, are regulated by the State and Regional Boards under Porter-Cologne. State jurisdiction over waters of the state is broader in scope than federal jurisdiction of WOUS in California.

In general, Porter-Cologne requires that all parties proposing a discharge that could affect waters of the state file a report of waste discharge with the applicable regional board. The regional board may either issue waste discharge requirements (WDRs), including conditions and measures to protect waters of the state in a public hearing, or may waive the issuance of WDRs with or without additional discharge conditions. As discussed above, Section 4012 of the federal CWA requires state agencies certification that a proposed permit for the fill of a WOUS complies with state water quality objectives. In some instances, the state definition of a water may be larger in size and/or broader in scope than the definition used for federal CWA delineation purposes. Most regional boards utilize the 401 certification process to determine whether additional WDRs may be required for impacts to waters of the state that are not addressed by a proposed federal fill permit. Discharges to waters of the state that are not federally regulated require compliance with the Porter-Cologne discharge notice and WDR issuance process. Many regional boards have adopted criteria for the issuance of WDRs that are similar to federal CWA Section 404 permit requirements, including the need to demonstrate a project has been designed to avoid, minimize, and mitigate for unavoidable effects to waters of the state and would not result in a net loss of wetlands.

The State Board is considering the adoption of a Wetland and Riparian Area Protection Policy in three phases (State Board Resolution No. 2008-0026) in three phases. Phase 1, the “Wetland Area Protection and Dredge and Fill Permitting Policy,” is currently under review by the Board and includes a proposed wetland definition, delineation methods, an assessment framework for collecting and reporting aquatic resource information, and requirements applicable to discharges of

dredged or fill material. A draft policy, draft regulation text, and CEQA analysis of the Phase 1 proposal remain pending.

California State Fish and Game Code §§3503, 3503.5 and 3513 (Raptors and Migratory Birds)

Several provisions of the CFGC protect avian species, nests, and eggs. Section 3503 provides that it is unlawful “to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Section 3503.5 extends these statutory protections more specifically to raptors and birds of prey (Falconiformes or Strigiformes). The CDFW has not implemented ITP programs for Sections 3503 or 3503.5. Section 3513 makes it unlawful to “possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Treaty Act.” As discussed above, apart from certain limited exceptions, the USFWS has not implemented an incidental take program for the MBTA.

Sections 3511, 4700, 5050, and 5515 of the CFGC prohibit the take or possession of certain birds, mammals, fish, and reptiles. These species are commonly referred to as “fully protected” under state law and state agencies are prohibited from permitting actions that would result in the incidental take of these species except under the auspices of an approved NCCP.

California Native Plant Protection Act of 1977; California Fish and Game Code §1900 et seq.

The Native Plant Protection Act of 1977 (CFGC 1900 et seq.) authorizes CDFW to designate rare and endangered native plants and provides specific protection measures for state-listed species.

CEQA Guidelines Section 15380

CEQA Guidelines Section 15380(b) provides that species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to be “endangered” or “rare” within the meaning of the statute. To be “endangered” means that the species survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors. A species is “rare” when either: (1) although not presently threatened with extinction, the species exists in such small numbers throughout all or a significant portion of its range that it may become endangered if the environment worsens or (2) the species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and not be considered “threatened” within the meaning of CESA.

Natural Community Conservation Planning Act (California Fish and Game Code 2800 et seq.)

In 1991 California enacted the Natural Community Conservation Planning Act (CFGC Section 2800 et seq.) to authorize the creation and implementation of NCCPs to conserve natural

communities at the ecosystem level while accommodating compatible land use. The act was revised in 2003 and has been subsequently amended. An NCCP is intended to function much like a federal HCP and provide for the long-term conservation of wildlife and plant communities in regional locations in manner that also allows for economic development and growth. Section 2805(e) allows the incidental take of fully protected species that are covered under an approved NCCP.

Regional and Local

Metropolitan Bakersfield General Plan

The Project is in the Metropolitan Bakersfield General Plan (MBGP) area and would therefore be subject to its applicable policies and measures. The Conservation/Biological Resources, Land Use, and Open Space and Park Element of the MBGP include goals, policies, and implementation measures related to biological resources that apply to the Project, as described below.

Chapter V, Conservation/Biological Resources Element

Goals

Goal 1. Conserve and enhance Bakersfield's biological resources in a manner which facilitates orderly development and reflects the sensitivities and constraints of these resources.

Goal 2. To conserve and enhance habitat areas designated 'sensitive' animal and plant species.

Policies

Policy 1. Direct development away from 'sensitive biological resource' areas, unless effective mitigation measures can be implemented.

Policy 5. Determine the locations and extent of suitable habitat areas required for the effective conservation management of designated 'sensitive' plant and animal species.

Implementation Measures

Implementation Measure 1. When considering discretionary development proposals, consult available biological resource data covering the area. Determine the potential impacts and necessary mitigation measures for identified biological resources, as required in the California Environmental Quality Act. Regularly consult with resource agencies.

Metropolitan Bakersfield Habitat Conservation Plan

The Project falls within the plan area boundary of the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP). The MBHCP, which expired on January 1, 2023, served as an HCP pursuant to Section 10(a)(1)(B) of the Endangered Species Act and ITP issued under Section 2081 of CESA by CDFW that focused on the conservation of species and habitats in the Metropolitan Bakersfield area. The MBHCP allowed permittees to obtain take of Threatened, Endangered, and Rare plant and animal species covered by the MBHCP. Regulation of take of species was authorized by the USFWS and the CDFW for lawful actions (e.g., public, and private projects).

The MBHCP covered take of 17 species of concern in the 261,120-acre plan area. Because of the expiration of the MBHCP as of January 1, 2023, the MBHCP will not apply to the Project.

Kern County Development Standards

Chapter 19.81, Dark Skies Ordinance (Outdoor Lighting)

In November 2011, the County of Kern approved a Dark Skies Ordinance. The purpose of this ordinance is to maintain the existing character of Kern County by requiring a minimal approach to outdoor lighting, recognizing that excessive illumination can create a glow that may obscure the night sky, and that excessive illumination or glare may constitute a nuisance. The ordinance provides requirements for outdoor lighting within specified unincorporated areas of Kern County to accomplish the following objectives:

Objective 1: Encourage a safe, secure, and less light-oriented nighttime environment for residents, businesses and visitors.

Objective 2: Promote a reduction in unnecessary light intensity and glare, and to reduce light spillover onto adjacent properties.

Objective 3: Protect the ability to view the night sky by restricting unnecessary upward projections of light.

Objective 4: Promote a reduction in the generation of greenhouse gases by reducing wasted electricity that can result from excessive or unwanted outdoor lighting.

4.4.4 Impacts and Mitigation Measures

Methodology

The following impact analysis is based on existing and potential biological resources occurring in or near the project site, as identified by the Biological Resources Assessment prepared for the Project. Biological resources evaluated include special status plant and wildlife species. Other resources, (e.g., wetlands, riparian habitat, movement corridors) are not anticipated to occur within the project site.

As described in Appendix C, biological field surveys were conducted on March 4, 2023, via biological habitat assessment, vegetation mapping, and identification of flora and fauna present within the project site. Based on the results of initial assessments, priority areas were identified for further investigation, including focused surveys. The project site was observed to have several California ground squirrel (*Otospermophilus beecheyi*) burrows, which have the potential to support special status burrowing mammals, such as burrowing owl (*Athene cunicularia*) and San Joaquin kit fox (*Vulpes macrotis mutica*). The potential for special status species to occur on the project site is based on the results of literature review, surveys of the project site, presence of suitable habitat, and the proximity of the project site to previously recorded occurrences.

As noted in Section 4.4.3, *Regulatory Setting*, the MBHCP, the MBGP, and the Dark Skies Ordinance provide a framework to guide development projects in the portion of Kern County where the Project is located. In addition, several federal and state statutes and regulations are relevant (or potentially relevant) to the plant and wildlife resources located on the project site, including the following: CESA (CFGC Section 2050 et seq), FESA (16 U.S.C. 1531 et seq), MBTA (16 U.S.C. 703–712), federal CWA, and CEQA Guideline Section 15380.

The following section addresses potential impacts to biological resources caused by implementation of the Project, particularly those considered to be special status or otherwise regulated by resource agencies noted above. Recommendations to address potential impacts are provided below.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist state that a project would normally be considered to have a significant impact if it would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS;

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted HCP, NCCP, or other approved local, regional, or state HCP.

Project Impacts

Impact 4.4-1: The project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.

Special Status Plant Species

Direct and Indirect Impacts

Special status plant species have a low expectation to occur on the project site; therefore, there is a low potential for direct or indirect impacts to special status plant species from project implementation. The project site is currently dominated by non-native grassland and is subject to disturbance from management practices. No special status plant species were observed during the survey conducted in March 2023, and special status plants are not expected to occur on the project site.

However, there remains a low possibility for special status plant species to occur on the project site. As such, **Mitigation Measure MM 4.4-5** would require a preconstruction survey be conducted. If any special status plants are identified as part of this survey, consultation with CDFW or US Fish and Wildlife Service (USFWS) would occur if required by applicable law. Therefore, with implementation of **Mitigation Measure MM 4.4-5**, potential direct and indirect impacts to special status plant species would be reduced to less than significant.

Special Status Wildlife

The following evaluates the Project's potential direct and indirect impacts on three special status wildlife species that could potentially occur on-site during construction activities: burrowing owl, San Joaquin kit fox, and Crotch's bumble bee, along with nesting birds.

Indirect Impacts

Burrowing Owl

Construction activities have the potential to result in indirect impacts to burrowing owls both on, and immediately adjacent to, the project site if this species occurs prior to and/or during project construction. These impacts include dust, noise and vibration, trash and debris, increased human presence, vehicle collisions, and chemical spills. These potential short-term or temporary indirect impacts to burrowing owls would be potentially significant under CEQA.

To minimize human presence during construction activities, **Mitigation Measures MM 4.4-1, MM 4.4-2, MM 4.4-3, and MM 4.4-4** would require ongoing biological monitoring, completion of a worker environmental awareness training, compliance with vegetation control measures listed within **Section 4.9-9** (see MM 4.4-3 below), regular removal of trash and debris on-site via animal-resistant trash receptacles, and completion of preconstruction surveys with consultation with CDFW and USFWS as applicable should species occur. Further, **MM 4.4-9** would require burrowing owl surveys to be conducted prior to ground disturbance activities and appropriate construction buffers established around any burrowing owl burrows found on or immediately adjacent to the project site, thus minimizing most short-term indirect impacts. **MM 4.4-12** would require nighttime lighting during construction or operation to be directed away from areas containing habitat for special status wildlife. Lastly, **Mitigation Measure MM 4.9-1** (see Section 4.9, *Hazards and Hazardous Materials*, for full mitigation measure text) would ensure prompt and effective response to any accidental chemical spills, as well as the repair and cleanup of hazardous waste. Therefore, implementation of **Mitigation Measures MM 4.4-1 through MM 4.4-4, MM 4.4-9, MM 4.4-12, and MM 4.9-1** would reduce potential indirect impacts to burrowing owls to less than significant.

San Joaquin Kit Fox

Construction activities have the potential to result in short-term indirect impacts to San Joaquin kit fox, should any be passing through or foraging on the project site during construction. Those impacts could include construction associated dust, noise and vibration, trash and debris, increased human presence, vehicle collisions, and chemical spills. Should individual kit foxes occupy the project site prior to construction, these short-term or temporary indirect impacts to kit foxes would be potentially significant under CEQA.

As mentioned above, **Mitigation Measures MM 4.4-1 through MM 4.4-4** would require ongoing biological monitoring, completion of worker environmental awareness training, compliance with vegetation control measures listed within Section 4.9-9 (see MM 4.4-3 below), regular removal of trash and debris on-site via animal-resistant trash receptacles, and completion of preconstruction surveys with consultation with CDFW and USFWS as applicable should species occur. Further, **Mitigation Measure MM 4.4-10** would require a preconstruction survey for San Joaquin kit fox and, if determined present, would result in establishment of a San Joaquin kit fox monitoring and mitigation plan that would include avoidance and minimization measures to reduce potential indirect impacts. Lastly, **Mitigation Measures MM 4.4-12 and MM 4.9-1** (see Section 4.9, *Hazards and Hazardous Materials*) would respectively require nighttime lighting to be shifted

away from special status wildlife habitats and ensure prompt and effective responses to accidental chemical spills and cleanup of hazardous waste. Therefore, implementation of **Mitigation Measures MM 4.4-1 through MM 4.4-4, MM 4.4-10, MM 4.4-12, and MM 4.9-1** would reduce potential indirect impacts to San Joaquin kit fox to less than significant.

Crotch's Bumble Bee

The Project could result in indirect impacts on individual Crotch's bumble bees due to noise and vibration and other indirect effects. Ongoing biological monitoring, worker environmental awareness training, effective cleanup of trash and debris, and completion of preconstruction surveys would reduce indirect impacts to wildlife species in the area, including the Crotch's bumble bee (**Mitigation Measures MM 4.4-1 through MM 4.4-4**). Additionally, implementation of **Mitigation Measures MM 4.4-11 and MM 4.4-12** would reduce potential indirect impacts from noise and vibration by requiring a preconstruction survey for Crotch's bumble bee, avoidance of nesting resources, and a 100-foot buffer, if present, until the nesting period has concluded. **Mitigation Measure MM 4.9-1** would further ensure prompt and effective responses to accidental chemical spills and cleanup of hazardous waste. Therefore, implementation of **Mitigation Measures MM 4.4-1 through MM 4.4-4, MM 4.4-11, and MM 4.9-1**, would reduce potential indirect impacts on Crotch's bumble bees.

Nesting Birds

Construction activities have the potential to result in indirect impacts to nesting migratory birds and raptors. Those impacts could include the loss of an active nest through increased dust, noise and vibration, increased human presence, and nighttime lighting. Potential short-term or temporary indirect impacts to active bird nests would be significant under CEQA.

Potential post-construction (long-term) activities that have the potential to result in significant indirect impacts to migratory birds and raptors include nighttime lighting that may adversely affect active nests. This long-term indirect impact to migratory birds and raptors would be potentially significant under CEQA.

Mitigation Measures MM 4.4-1 through MM 4.4-4 would reduce indirect impacts to wildlife species in the area, including nesting birds, by requiring ongoing biological monitoring, worker environmental awareness training, compliance with all biological resource mitigation requirements, and completion of preconstruction surveys. To ensure compliance with the CFGC and MBTA, and to avoid potential indirect impacts to nesting birds specifically, vegetation removal activities would be conducted outside the general bird nesting season (February 15 through September 15, depending on the species). If vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey (**Mitigation Measure MM 4.4-6**) by a qualified biologist would be required prior to vegetation removal. Indirect impacts would include increased dust, noise and vibration, human presence, nighttime lighting, and vehicle collisions. Further, **Mitigation Measure MM 4.4-12** would require nighttime lighting to be shifted away from special status wildlife habitats. Therefore, implementation of **Mitigation Measures MM 4.4-1 through MM 4.4-4, MM 4.4-6, and MM 4.4-12** would reduce potential indirect impacts to nesting birds and raptors to less than significant.

Direct Impacts

Burrowing Owl

The project site provides suitable foraging and nesting habitat for burrowing owls. Several suitable burrowing owl burrows (burrow openings approximately 4 inches in diameter or greater) or burrow complexes were observed during the survey effort. As previously noted, no burrowing owls or their sign (e.g., whitewash, pellets, prey remains, feathers) were observed during the biological survey conducted on the project site. However, the potential for burrowing owls to use the ground squirrel burrows on-site as temporary shelter, nesting, or overwintering prior to project implementation cannot be entirely ruled out. In the unlikely event that, burrowing owls move onto the site prior to construction, ground disturbance activities could result in injury or mortality to burrowing owls. Because this species is a CDFW SSC and is protected by provisions in the CFGC addressing active bird nests and raptors, such injury or mortality would constitute a potentially significant impact under CEQA. **Mitigation Measure MM 4.4-9** includes a requirement for a preconstruction survey for burrowing owls on the site, prescribes buffers for avoidance of occupied burrows, and describes when passive relocation may be used, if necessary, to exclude owls from the project site. With implementation of **Mitigation Measure MM 4.4-9**, potential direct impacts to burrowing owl would be reduced to less than significant.

San Joaquin Kit Fox

Several burrows or burrow complexes meeting the minimum size criteria were identified and examined (**Figure 4.4-1**). Of these, none were confirmed to be San Joaquin kit fox natal dens or active dens. Furthermore, none of these burrows were occupied by kit fox, and none showed sign (e.g., scat, prey remains, digging) of recent use by kit fox. In addition, no sign (e.g., tracks, scat, dens, prey remains) of kit fox presence was observed during the field survey. The loss of the site as foraging and habitat for kit fox is not expected to substantially affect populations of this species in the region. Per the results of the CNDDDB search, several historical records of this species have been documented within 0.1 mile to 5 miles from the project site. Although this species is not expected to den and/or breed on the project site, individual foxes could temporarily move through the site in search of prey or during movements between larger open space areas in the region with more suitable foraging habitat. In the unlikely event that an individual kit fox temporarily moves onto or through the site prior to or during construction, project activities could result in injury or mortality to individual kit foxes. Because of the rarity of this species, which is federally listed as endangered and state-listed as threatened, the loss of a San Joaquin kit fox would be a potentially significant impact under CEQA. Implementation of **Mitigation Measure MM 4.4-10** includes a requirement for preconstruction surveys and standard measures recommended by USFWS to avoid impacts to San Joaquin kit fox prior to and during construction activities. With implementation of **MM 4.4-10**, potential impacts to San Joaquin kit fox would be reduced to less than significant with mitigation.

Crotch's Bumble Bee

Crotch's bumble bee is a state candidate for listing as endangered. It occurs in open grassland and scrub communities supporting suitable floral resources. It was not observed during surveys but has

potential to occur on the project site. The Project could result in direct impacts to individuals of this uncommon species or loss of suitable floral resources.

Implementation of **Mitigation Measure MM 4.4-11** would reduce potential direct impacts by requiring a preconstruction survey for Crotch's bumble bee and avoidance of nesting resources, if present, until the nesting period has concluded.

Nesting Birds

Similar to most other sites containing trees, shrubs, and other vegetation, the project site contains opportunities for birds of prey (raptors) and other avian species to nest on-site. Native nesting bird species with potential to occur within the project site are protected by CFGC Sections 3503 and 3503.5, and by the federal MBTA (16 U.S.C. 703–711). In particular, CFGC Section 3503 provides that it is unlawful to take, possess, or needlessly destroy the active nests or eggs of any bird in California; Section 3503.5 protects all raptors and their eggs and active nests; and the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of native migratory bird species throughout the United States. Currently, California considers any nest that is under construction or modification, or is supporting eggs, nestlings, or juveniles as “active.” Therefore, impacts to nesting migratory birds and raptors would be significant under CEQA absent mitigation.

To ensure compliance with the CFGC and MBTA and to avoid potential impacts to nesting birds, it is recommended that vegetation removal activities be conducted outside the general bird nesting season (February 1 through August 31, depending on the species). Per **Mitigation Measure MM 4.4-6**, if construction activities such as vegetation removal cannot occur outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal; if active nests are found, appropriate non-disturbance buffers would be established around any active nests until young have successfully fledged. Preconstruction nesting bird surveys would also be required via **Mitigation Measure MM 4.4-7** if construction activities are scheduled to take place during breeding seasons for raptors or other migratory birds (February 1 through August 31). Additionally, construction areas would be surveyed for actively nesting birds prior to any vegetation removal during site preparation per **Mitigation Measure MM 4.4-8**. With implementation of **Mitigation Measures MM 4.4-6**, **MM 4.4-7**, and **MM 4.4-8**, direct impacts to nesting migratory birds and raptors would be less than significant.

Mitigation Measures

Avoidance and minimization measures are designed to reduce or eliminate impacts on special status species through project construction, operation, and decommissioning. Detailed specific measures are outlined below for each special status species that may occur on the project site.

Implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-12**, as described above and **MM 4.9-1** (Section 4.9, *Hazards and Hazardous Materials*) would be required.

MM 4.4-1 Prior to the issuance of grading permits, the project operator shall retain a Lead Biologist(s) who meets the qualifications of an Authorized Biologist as defined by California Department of Fish and Wildlife (CDFW) Service to oversee

compliance with protection measures for all listed and other special-status species that may be affected by the construction and operation of the project. The resume and contact information for the Lead Biologist(s) shall be provided in writing to the Planning and Natural Resources Department.

The following measures pertain to the Lead Biologist(s):

- a. The Lead Biologist(s), or their designee, shall be on the project site during all construction activities which include, but are not limited to, installation of perimeter fencing, clearing of vegetation, grading activities, and facility construction.
- b. The Lead Biologist(s) or their designee shall have the right to halt all activities that are in violation of the special-status species protection measures, as well as any regulatory permits from the U.S. Fish and Wildlife Service and/or the California Department of Fish and Wildlife, if applicable. Work shall proceed only after hazards to special-status species are removed and the species is no longer at risk.

MM 4.4-2 Prior to the issuance of grading permits, the Lead Biologist shall develop a Worker Environmental Awareness Training Program containing life history and identification information of special-status wildlife and plant species with potential to occur on site. The Worker Environmental Awareness Training Program shall review responsibilities for all on-site personnel including trash control, checking under and around vehicles and heavy equipment before starting, scanning for wildlife resources, contacting the Lead Biologist in the unanticipated instance of encountering special status wildlife species, and prohibition of pets and firearms. All on-site personnel shall be required to attend a worker environmental training. A sticker shall be placed on hard hats, indicating that the worker has completed the Worker Environmental Awareness Training. Copies of all prepared materials including, but not limited to, PowerPoint presentations, videos, information handouts and signed acknowledgement from each worker who has attended the required training shall be provided to the Planning and Natural Resources Department.

MM 4.4-3 During construction of the project site, the project proponent and/or contractor(s) shall implement the following general avoidance and protective measures:

- a. Immediately prior to conducting vegetation clearing or similar activities, the Lead Biologist or their designee shall perform a pre-construction visual survey of the area to ensure that no special-status species are present. Daily reports of these inspections shall be retained by the Lead Biologist and provided to the Kern County Planning and Natural Resources Department, U.S. Fish and Wildlife Service, or California Department Fish and Wildlife upon request.

- b. Within the vicinity of any construction activities, sensitive biological resources (i.e., special-status species, jurisdictional drainages, nesting birds, etc.) shall be delineated with stakes and/or flagging.
- c. All construction activities shall be confined within the project construction area, which may include temporary access roads, haul roads, and staging areas specifically designated and marked for these purposes. At no time shall equipment or personnel be allowed to adversely affect areas outside the project site.
- d. Any spoils shall be stockpiled in disturbed areas that lack native vegetation to the maximum extent practicable. Spoils that have been stockpiled and inactive for more than 24 hours shall be inspected by a qualified biologist for signs of special-status wildlife before moving or disturbing.
- e. To prevent inadvertent entrapment of San Joaquin kit foxes, American badgers, or other animals during construction, all excavated steep-walled holes or trenches more than two (2) feet deep shall be covered with plywood or similar materials at the close of each working day. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or wooden planks, no less than 12 inches wide and secured at the top, shall be placed a minimum of every 100 feet within the open trench. Covered and non-covered holes or trenches shall be thoroughly inspected for trapped animals by a qualified biologist at the beginning and end of each working day. Immediately before such holes or trenches are filled, they shall again be thoroughly inspected by trained Staff approved by the Lead Biologist. If any trapped animals are observed, escape ramps or structures shall be installed immediately to allow for their escape. If a listed species is trapped, the Lead Biologist shall immediately confer with the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.
- f. All construction pipes, culverts, or similar structures with a diameter of four (4) inches or greater that are stored at the site for more than 24 hours and without endcaps shall be thoroughly inspected by a qualified biologist prior to being moved or capped. If a listed wildlife species is discovered inside a pipe, that section of pipe shall not be moved until a qualified biologist has been consulted and the animal has either moved from the structure on its own accord or until the animal has been captured and relocated in conformance with appropriate wildlife agency guidelines.
- g. No construction vehicle or equipment parked on the project site shall be moved prior to inspecting the ground beneath the vehicle or equipment for the presence of listed wildlife species. If present, the animal shall be left to move on its own.

- h. A speed limit of 15 miles per hour shall be enforced within the limits of the project site. If night work occurs on the project site, the speed limit will be 10 miles per hour.
- i. Fueling of construction equipment shall take place within existing roads or disturbed areas. No refueling within or adjacent to drainages (within 150 feet) shall be permitted. Contractor equipment shall be checked for leaks prior to operation and repaired as necessary.
- j. Trash and food items shall be contained in closed containers to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.
- k. Workers shall be prohibited from bringing pets and firearms to the project site and from feeding wildlife.
- l. No pets shall be allowed in project areas, except for trained canine animals related to security and operation of the facility.
- m. Intentional killing or collection of any listed plant or wildlife species shall be prohibited.
- n. Herbicides that may be used as vegetation control measures in project areas shall be applied in accordance with submeasures below. All uses of such herbicidal compounds shall observe label and other restrictions mandated by the U.S Protection Agency, California Department of Food and Agriculture, and state/federal legislation as well as additional project related restrictions deemed necessary by the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife.
 - 1. The construction contractor or project personnel shall use herbicides that are approved by the California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) for use in California and are appropriate for application adjacent to natural vegetation areas (i.e., nonagricultural use). Personnel applying herbicides shall have all appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use.
 - 2. Herbicides shall be mixed and applied in conformance with the manufacturer's directions.
 - 3. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used. To minimize harm to wildlife, vegetation, and water bodies, herbicides shall not be applied directly to wildlife.

4. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed; and herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water.
5. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated.
6. A written record of all herbicide applications on the site, including dates and amounts, shall be furnished annually to the Kern County Planning and Natural Resources Department.

MM 4.4-4 No more than (30) days prior to the issuance of any grading permits or the start of ground disturbance, a qualified biologist knowledgeable in the identification of all special-status wildlife species shall conduct a pre-construction survey of areas proposed for disturbance within the project site and 500-foot buffer (where legally accessible) to determine if any special-status species are present. If, as a result of this pre-construction survey it is determined that special-status wildlife species are present, the project proponent shall confer with the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife, as required by applicable law, for proper avoidance measures or the need for take authorization through the acquisition of an incidental take permit, pursuant to Fish and Game Code section 2081 subdivision (d).

MM 4.4-5 No more than thirty (30) days prior to the start of ground disturbance activities or issuance of any grading permits, a qualified biologist knowledgeable on the identification of rare plant species shall conduct a pre-construction plant survey of areas of proposed disturbance within the project site and 100-foot buffer (where legally accessible) to determine if any special-status plant species are present. If special-status plants are identified on-site, their locations shall be mapped and the project proponent shall confer with CDFW or USFWS as required by applicable law to facilitate salvage or seed collection.

MM 4.4-6 If construction activities are conducted during the typical nesting bird season (February 15 through September 15), pre-construction surveys shall be conducted by a qualified biologist prior to any site preparation and/or construction activity to identify potential nesting bird activity. The survey area shall include a 500-foot buffer surrounding the property. Swainson's hawk protocol-level surveys shall be consistent with the survey methods developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC 2000); If no active nests are found within the survey area, no further mitigation is required. If nesting activity is identified during the pre-construction survey process, the following measures will be implemented:

- a. If active nest sites of bird species protected under the Migratory Bird Treaty Act and/or California Fish and Game Code are observed within the project site, then the project will be modified and/or delayed as necessary to avoid direct take of the identified nests, eggs, and/or young;
- b. If active nest sites of raptors and/or bird species of special concern are observed within the vicinity of the project site, then the appropriate buffer around the nest site (typically 250 feet for passerines and 500 feet for raptors) will be established. Construction activities in the buffer zone will be prohibited until the young have fledged the nest and achieved independence; and,
- c. Active nests shall be documented by a qualified biologist, and a letter report shall be submitted to the Kern County Planning and Natural Resources Department documenting project compliance with the Migratory Bird Treaty Act and California Fish and Game Code.

MM 4.4-7 Pre-construction protocol-level surveys by a qualified biologist for nesting birds shall be required if construction activities are scheduled to occur during the breeding season for raptors and other migratory birds (February 1– August 31), to reduce potential impacts to nesting birds and raptors. The survey shall be conducted within 30 days of ground disturbance activities.

- a. If any nesting birds/raptors are observed, a qualified biologist shall determine buffer distances and/or the timing of project activities so that the proposed Project does not cause nest abandonment or destruction of eggs or young. This measure shall be implemented so that the proposed Project remains in compliance with the Migratory Bird Treaty Act and applicable State regulations.

MM 4.4-8 Prior to any vegetation removal during site preparation, the areas required for construction shall be surveyed for actively nesting birds. If any wildlife is encountered during the course of construction, the wildlife shall be allowed to leave the construction area unharmed. Should any active bird nests be identified, the vegetation shall not be removed in areas that contain actively nesting birds. A biological monitor shall survey the areas of vegetation slated for removal, a report shall be submitted to the Kern County Planning and Natural Resources Department for review prior to site preparation.

MM 4.4-9 Preconstruction surveys shall be conducted by a qualified biologist to locate active breeding or wintering burrowing owl burrows no fewer than 14 days prior to commencement of ground-disturbing activities. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 14 days prior to that portion of the project site disturbed.

The survey methodology shall be consistent with the methods outlined in the 2012 California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation and shall consist of walking parallel transects 7 to 20 meters apart, adjusting for vegetation height and density as needed, and noting any potential burrows with fresh burrowing owl sign or presence of burrowing owls. As each burrow is investigated, surveying biologists shall also look for signs of American badger and San Joaquin kit fox. Copies of the survey results shall be submitted to California Department of Fish and Wildlife and the Kern County Planning and Natural Resources Department.

If burrowing owls are detected on-site, the avoidance buffers outlined below should be established. These buffers shall be implemented prior to and during any ground-disturbing activities. Specifically, California Department of Fish and Wildlife's Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist, approved by California Department of Fish and Wildlife, verifies through non-invasive methods that either: 1) the birds have not begun egg laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival. Visible markers shall be placed near the identified burrow(s) to ensure that machinery does not collapse the burrow(s).

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1 – Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16 – Oct 15	200 m*	200 m	500 m
Nesting sites	Oct 16 – Mar 31	50 m	100 m	500 m

*meters (m)

If burrow avoidance is infeasible during the non-breeding season or during the breeding season (February 1 through August 31) where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, a qualified biologist shall implement a passive relocation program in accordance with *Appendix E* (i.e., *Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans*) of the 2012 California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation.

If passive relocation is required, a qualified biologist shall prepare a Burrowing Owl Exclusion and Mitigation Plan and a Mitigation Land Management Plan, in accordance with the 2012 California Department of Fish and Wildlife Staff Report on Burrowing Owl Mitigation, for review by California Department of Fish and Wildlife prior to passive relocation activities. If applicable, the Mitigation Land Management Plan shall include a requirement for the permanent conservation of

offsite Burrowing Owl Passive Relocation Compensatory Mitigation. At a minimum, the following recommendations shall be implemented:

- a. Temporarily disturbed habitat shall be restored, if feasible, to pre-project conditions including decompacting soil and revegetating.
- b. Permanent impacts to nesting, occupied and satellite burrows and/or burrowing owl habitat shall be mitigated such that the habitat acreage, number of burrows and burrowing owl impacted are replaced based on a site-specific analysis and shall include permanent conservation of similar vegetation communities (grassland, scrublands, desert, urban, and agriculture) to provide for burrowing owl nesting, foraging, wintering, and dispersal (i.e., during breeding and non-breeding seasons) comparable to or better than that of the impact area, and with sufficiently large acreage, and presence of fossorial mammals.
- c. Permanently protect mitigation land through a conservation easement, deed restriction, or similar mechanism deeded to a nonprofit conservation organization or public agency with a conservation mission. If the project is located within the service area of a California Department of Fish and Wildlife -approved burrowing owl conservation bank, the project operator may purchase available burrowing owl conservation bank credits. Land identified to mitigate for passive relocation of burrowing owl may be combined with other offsite mitigation requirements of the proposed Project if the compensatory habitat is deemed suitable to support the species.

MM 4.4-10 Prior to and during construction activities:

- a. If any San Joaquin kit fox dens are found during pre-construction surveys, the status of the dens shall be evaluated no more than 14 days prior to project ground disturbance. Provided that no evidence of kit fox occupation is observed, potential dens shall be marked and a 50-foot avoidance buffer delineated using stakes and flagging or other similar material to prevent inadvertent damage to the potential den. If a potential den cannot be avoided, it may be hand-excavated following United States Fish and Wildlife Service standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance by the lead biologist. If kit fox activity is observed at a den, the den status shall change to “known” per United States Fish and Wildlife Service guidelines (1999), and the buffer distance shall be increased to 100 feet. Absolutely no excavation of San Joaquin kit fox known or pupping dens shall occur without prior authorization from the United States Fish and Wildlife Service and California Department of Fish and Wildlife.
- b. To enable kit foxes and other wildlife (e.g., American badger) to pass through the project site during construction, the perimeter security fence shall leave a

5-inch opening between the fence mesh and the ground or the fence shall be raised 5 inches above the ground. The bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that passes under the fence.

- c. All pipes, culverts, or similar structures with a diameter of four inches or more that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for kit foxes before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If a kit fox is discovered inside a pipe, that section of pipe shall not be moved until the United States Fish and Wildlife Service has been consulted. If necessary, under the direct supervision of the biologist, the pipe may be moved once to remove it from the path of construction activity until the fox has escaped.
- d. To prevent inadvertent entrapment of San Joaquin kit foxes, badgers, or other animals during construction, all excavated, steep-walled holes or trenches more than two feet deep shall be covered with plywood or similar materials at the close of each working day, or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, they shall be thoroughly inspected for trapped animals. If trapped animals are observed, escape ramps or structures shall be installed immediately to allow escape. If listed species are trapped, the United States Fish and Wildlife Service and California Department of Fish and Wildlife shall be contacted.
- e. All vertical tubes used in project construction, such as chain link fencing poles shall be temporarily or permanently capped at the time they are installed to avoid the entrapment and death of special-status birds.

MM 4.4-11 A qualified biologist shall conduct a survey for Crotch's bumble bee and their requisite habitat using the California Department of Fish and Wildlife -approved protocol during the blooming period immediately prior to project construction to detect bumble bees and potential nesting sites. The survey shall be conducted within a survey area that includes a 50-foot buffer around the Project footprint and results submitted to California Department of Fish and Wildlife at least seven (7) days prior to commencing any project activities. If Crotch's bumble bee is identified during surveys or at any time during Project construction, the project proponent shall confer with California Department of Fish and Wildlife to determine if take can be avoided. If avoidance of Crotch's bumble bee nest(s) is not feasible, take authorization prior to ground disturbing activities is warranted. Ake authorization would occur through issuance of an Incidental Take Permit by California Department of Fish and Wildlife, pursuant to Fish and Game Code section 2081(b). Alternatively, in the absence of surveys, the project proponent may assume presence and apply for and acquire an Incidental Take Permit for Crotch's bumble bee prior to initiating project activities.

- MM 4.4-12** If nighttime lighting for construction activities and operations is required and is within 50 feet of the outside edge of areas containing habitat for special-status wildlife, as determined by the qualified biologist, lighting shall be directed away from those areas that contain habitat for special-status wildlife.

Level of Significance After Mitigation

With implementation of **MM 4.4-1** through **MM 4.4-12**, **MM 4.9-1**, and **MM 4.9-4** (see **Section 4.9, Hazards and Hazardous Materials**), impacts would be less than significant after mitigation.

Impact 4.4-2: The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or United States Fish and Wildlife Service.

As stated in Section 4.4.2, *Local Setting*, one land cover type was identified on-site, which is not considered sensitive pursuant to local, state, and federal guidelines and policies. The Project would result in permanent impacts to 49.05 acres of non-native grassland, which is not considered sensitive by CDFW. Therefore, no significant impacts to habitat or vegetation communities identified in local or regional plans, policies, or regulations, or by CDFW or USFWS would occur, and the impact would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance

No impacts would occur.

Impact 4.4-3: The project would have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

As detailed in Section 4.4.2, *Aquatic Resources*, there are no sensitive aquatic features within or adjacent to the project site; therefore, no significant impact would occur.

Mitigation Measures

No Mitigation Measures are required.

Level of Significance After Mitigation

No impacts would occur.

Impact 4.4-4: The project would interfere substantially with the movement of any resident or migratory fish or wildlife species or with established resident or migratory wildlife corridors or impede the use of wildlife nursery sites.

As discussed above, the project site does not provide for regional wildlife movement or serve as a regional wildlife corridor, nor include any streams or water courses. Because the project site does not serve as a lone corridor between fragmented portions of open space, project development would not impede local or seasonal wildlife movement between large open space areas in the project region. Therefore, no adverse or significant impacts would occur to wildlife movement corridors.

In addition, because no native wildlife nursery sites, such as bat colony roosting sites or colonial bird nesting areas, occur on the project site, development of the site would not likely impede the use of wildlife nursery sites by native species. However, as discussed in **Impact 4.4-1** above, construction of the Project would require the removal of existing vegetation and introduce noise, dust, and human activity that could impacts nesting avian species if present.

Potential impacts on wildlife within the project area, including nesting bird species, would be reduced by ensuring compliance with all biological resource mitigation measures outlined in **Mitigation Measure MM 4.4-3**. Further, per **Mitigation Measure MM 4.4-6**, if construction activities such as vegetation removal cannot occur outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal; if active nests are found, appropriate non-disturbance buffers would be established around any active nests until young have successfully fledged. Preconstruction nesting bird surveys would also be required via **Mitigation Measure MM 4.4-7** if construction activities are scheduled to take place during breeding seasons for raptors or other migratory birds (February 1 through August 31). Furthermore, construction areas would be surveyed for actively nesting birds prior to any vegetation removal during site preparation per **Mitigation Measure MM 4.4-8**. Therefore, with the implementation of **Mitigation Measures MM 4.4-3** and **MM 4.4-6** through **MM 4.4-8**, impacts to wildlife corridors and wildlife nursery sites would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.4-3**, **MM 4.4-6**, **MM 4.4-7**, and **MM 4.4-8** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.4-3**, **MM 4.4-6**, **MM 4.4-7**, and **MM 4.4-8**, impacts would be less than significant after mitigation.

Impact 4.4-5: The project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

The Project would follow the regulations outlined in and consistent with the MBGP Goals and Policies; measures discussed in **Impacts 4.4-1** and **4.4-5**; and implement the aforementioned Mitigation Measures, thereby ensuring biological resources identified in the general plans would

be protected in accordance with FESA, CESA, and CEQA. Thus, the Project would not be in conflict with local policies or ordinances for protection of biological resources, and impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-12**, and **MM 4.9-1** (Section 4.9, *Hazards and Hazardous Materials*).

Level of Significance

With implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-12**, and **MM 4.9-1** (Section 4.9, *Hazards and Hazardous Materials*), impacts would be less than significant after mitigation.

Impact 4.4-6: The project would conflict with the provisions of an adopted habitat conservation plan, natural conservation community plan, or other approved local, regional, or state habitat conservation plan.

The project site is within the previous boundaries of the MBHCP Sphere of Influence. However, as mentioned above, the MBHCP expired on January 1, 2023. The MBHCP previously served as an HCP pursuant to Section 10(a)(1)(B) of the Endangered Species Act and ITP issued under Section 2081 of CESA by CDFW that focused on the conservation of species and habitats in the Metropolitan Bakersfield area. The MBHCP expired as of January 1, 2023, and therefore no longer applies to the Project. Therefore, the proposed Project would not conflict with any adopted HCP, NCCP, or other approved local, regional, or state HCP.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No impacts would occur.

4.4.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

The geographic scope for cumulative impacts to biological resources includes 29 projects within a six-mile radius of the Project. Analysis of cumulative impacts takes into consideration the entirety of impacts that the projects, zone changes, and the general plan amendments previously discussed would have on biological resources. This geographic scope of analysis is appropriate because, although impacts associated with the Project would primarily be localized to the disturbance areas, losses of vegetation or fragmentation of wildlife corridors could combine with similar impacts of other projects beyond these limited impact areas.

Cumulative impacts for a project would be significant if the incremental effects of the individual project are considerable when combined with the effects of past projects, other current projects, and probable future projects. As described above, the project-specific impacts of the project would be less than significant with implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-12**, and **MM 4.9-1** (Section 4.9, *Hazards and Hazardous Materials*).

As urbanization pressures increase within Kern County, impacts to biological resources at a cumulative level within the region are anticipated. As described in Table 3-8, *Cumulative Projects*, in Chapter 3, *Project Description*, of this Draft EIR, other projects that result in the conversion of undeveloped land to developed land and the associated habitat loss are all proposed within the same region as the Project. In general, bioregions are defined through physical and environmental features, including watershed boundaries and soil terrain characteristics. Areas to the north and west of the Tehachapi Mountains, and to the south of the San Gabriel Mountains, are within a different bioregion and are separated from the project site by the natural geography that these ranges present. State Route 99 crosses through Bakersfield going north to south and also acts as a barrier to wildlife movement.

As described above, there are three special status species that could occupy the project site and vicinity including the burrowing owl, San Joaquin kit fox, and Crotch's bumble bee, along with nesting birds. Implementation of the Project, along with related projects, has the potential to impact these wildlife species. The project site contains habitat that can support plants, insects, rodents, and small birds that provide prey base for raptors and terrestrial wildlife. In addition, based on the analyses completed for the Project, the region is known to support a diversity of special status species, most of which are not expected to utilize the project site on a transient basis, if at all.

Given the number of present and reasonably foreseeable future development projects in the region, the Project, when combined with other projects, when combined with other projects, could contribute to cumulative loss of habitat for special status species. Implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-12** would reduce impacts to less than significant for the Project. Although the Project, when combined with other related development projects throughout the County, could cumulatively impact habitat for special status species, particularly San Joaquin kit fox and burrowing owl as noted in the Biological Report, there being no occupied dens or evidence of species occupying the site, in addition to the extensive development that exists within the surrounding land, cumulative impacts would be less than significant in this regard.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-12**, and **MM 4.9-1** (Section 4.9, *Hazards and Hazardous Materials*) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-12**, and **MM 4.9-1** (Section 4.9, *Hazards and Hazardous Materials*), cumulative impacts would be less than significant after mitigation.

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Section 4.5

Cultural Resources

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Section 4.5

Cultural Resources

4.5.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding cultural and historical resources in the proposed IPG Industrial Project (Project) site, including the area's pre-Contact, ethnographic, and historical settings. This section also summarizes the results of preliminary cultural surveys of the Project site and analyzes the impacts on cultural resources that would result from implementation of the Project, and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the 2024 Phase I Historical/Archaeological Resources Survey and the 2023 Paleontological Resources Assessment Report, both prepared by CRM Tech (Appendix D).

The cultural resources report and Native American consultation were conducted for purposes of compliance with the California Environmental Quality Act (CEQA) and Assembly Bill 52 (AB 52). This evaluation does not include maps or location descriptions and such information is not included in the appendix because of the confidential nature of the location of cultural resources. The Project's potential impacts on tribal cultural resources are addressed in Section 4.18, *Tribal Cultural Resources*.

Cultural Resource Terminology

For the purposes of CEQA, "cultural resources" generally refer to pre-Contact and post-Contact (historic) archaeological sites and the built environment. Cultural resources can also include areas determined to be important to Native Americans. "Historical resources" generally refer to cultural resources that have been determined to be significant, either by eligibility for listing in state/local registers of historical resources, or by determination of a lead agency (see definitions in the following list). Historical resources can also include areas determined to be important to Native Americans, such as sacred sites. Sacred sites are most often important to Native American groups because of the role of the location in traditional ceremonies or activities.

The following definitions of key cultural resources terms are used in this section:

- **Archaeological Site:** A site is defined by the National Register of Historic Places (NRHP) as the place or places where the remnants of a past culture survive in a physical context that allows for the interpretation of these remains. Archaeological remains usually take the form of artifacts (e.g., fragments of tools, vestiges of utilitarian, or non-utilitarian objects), features (e.g., remnants of walls, cooking hearths, or midden deposits), and ecological evidence (e.g., pollen remaining from plants that were in the area when the activities occurred). **Pre-Contact archaeological sites** generally represent the material remains of Native American groups and their activities dating to the period before European contact

(the Contact period). In some cases, pre-Contact sites may contain evidence of trade contact with Europeans. **Ethnohistoric archaeological sites** are defined as Native American settlements occupied after the arrival of European settlers in California. **Historic archaeological sites** reflect the activities of nonnative populations in the period after initial European contact (the post-Contact period, also known as the historic period).

- **Artifact:** An object that has been made, modified, or used by a human being
- **Cultural Resource:** A cultural resource is a location of human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. Cultural resources include archaeological resources and built environment resources (sometimes known as historic architectural resources), and may include sites, structures, buildings, objects, artifacts, works of art, architecture, and natural features that were important in past human events. They may consist of physical remains or areas where significant human events occurred, even though evidence of the events no longer remains. Cultural resources also include places that are considered to be of traditional cultural or religious importance to social or cultural groups.
- **Cultural Resources Study Area:** All areas within the project site boundary plus a 1-mile buffer
- **Cultural Resources Survey Area:** All areas of potential permanent and temporary impacts for a reasonable worst-case development within the project site, plus a 60-foot buffer to account for secondary or unanticipated impacts
- **Ethnographic:** Relating to the study of human cultures. “Ethnographic resources” represent the heritage resource of a particular ethnic or cultural group, such as Native Americans or African, European, Latino, or Asian immigrants. They may include traditional resource-collecting areas, ceremonial sites, value-imbued landscape features, cemeteries, shrines, or ethnic neighborhoods and structures.
- **Historic period:** The period that begins with the arrival of the first nonnative population and thus varies by area. In 1772, Commander Don Pedro Fages was the first European man to enter Kern County, initiating the historic period in the Project study area.
- **Historical resource:** This term is used for the purposes of CEQA and is defined in the CEQA Guidelines (§15064.5) as: (1) a resource listed in, or determined to be eligible for listing in the California Register of Historical Resources (CRHR); (2) a resource included in a local register of historical resources, as defined in Public Resources Code (PRC) §5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.
- **Isolate:** An isolated artifact or small group of artifacts that appear to reflect a single event, loci, or activity. It may lack identifiable context but has the potential to add important

information about a region, culture, or person. Isolates are not considered under CEQA to be significant and, thus, do not require avoidance mitigation (CEQA Statute §21083.2 and CEQA Guidelines §15064.5). However, all isolates located during the field effort, are recorded and the data are transmitted to the appropriate California Historical Resources Information System Information Center.

- **Lithic:** Of or pertaining to stone. In archaeology, lithic artifacts are chipped or flaked stone tools and the stone debris resulting from their manufacture.
- **Native American sacred site:** An area that has been, and often continues to be, of religious significance to Native American peoples, such as an area where religious ceremonies are practiced or an area that is central to their origins as a people. They also include areas where Native Americans gather plants for food, medicinal, or economic purposes.
- **Pre-Contact period:** The era prior to 1772. The latter part of the pre-Contact period (post-1542) is also referred to as the protohistoric period in some areas, which marks a transitional period during which native populations began to be influenced by European presence, resulting in gradual changes to their lifeways.
- **Tribal Cultural Resource:** These are defined in AB 52 as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources (PRC § 21074 (a)(1)). Refer to Section 4.18, *Tribal Cultural Resources*, of this Draft EIR for further discussion.
- **Unique Archaeological Resource:** This term is used for the purposes of CEQA and is defined in PRC Section 21083.2(g) as an archaeological artifact, object, or site that does not merely add to the current body of knowledge. A unique archaeological resource has a clearly demonstrated and a high probability that it either contains information needed to answer important scientific research questions and that there is demonstrable public interest in that information, has a special and particular quality (such as being the oldest of its type or the best available example of its type), or is directly associated with a scientifically recognized important event or person of the past.

4.5.2 Environmental Setting

The Project is in unincorporated Kern County and approximately 1.7 miles north of the city of Bakersfield. The project site is approximately 49.05 acres in size and consists of two privately owned parcels: Assessor’s Parcel Numbers 492-010-13 and -17. These two parcels are west of Airport Drive and between Boughton and Skyway drives, in the southeast quarter of Section 2, Township 29 South, Range 27 East, Mount Diablo Baseline and Meridian, as depicted in the U.S. Geological Survey (USGS) 7.5-minute quadrangle *Oildale, California*. The Project is located in the southeastern end of the San Joaquin Valley where the Sierra Nevada, Great Valley, and Coastal Range physiographic provinces meet.

The project site is surrounded by the Meadows Field Airport to the west, several apartment complexes and a self-storage facility to the east, and vacant industrially zoned land to the north and

the south. One large soil stockpile and several smaller ones are located along the eastern side of the southern half of the property. Currently there are no standing structures or groves within the project area, but broken irrigation pipes and standpipes were observed along with a concrete structural foundation. The surface soils are composed of light brown fine- and medium-grained alluvial sands with small granitic cobbles. The ground surface project area has been recently disked, and the scattered vegetation remaining includes wild mustard, string meadows, foxtails, and other small shrubs and grasses.

The following overview of the general area's cultural past provides context for the relevance of resources found in the general project area. This section is not intended to be a comprehensive review of the current resources available; rather, it serves as an overview. Further details can be found in the Phase I Historical/Archaeological Resources Survey and Paleontological Resources Assessment Report prepared by CRM Tech (CRM Tech, 2023; Appendix F.2).

Archaeological Context

Early archaeological investigations in the San Joaquin Valley of California have primarily been conducted at sites located in the Buena Vista and Tulare Lakes regions. The earliest evidence of human occupation in the southern San Joaquin Valley, discovered at the Witt locality at Tulare Lake and reported by West et al. in 1991, included some of the oldest human remains in North America. These investigations of the artifacts of the San Joaquin Valley's pre-Contact cultural groups have revealed a complex history of cultural change that has occurred over time. Through these studies, a cultural chronological framework encompassing three basic periods has been developed. The following general framework proposes three primary periods, although the beginning and ending dates of the recognized cultural horizons vary among different parts of the region:

- Paleoindian Period (circa 16,000 to 8,550 years before present)
- Archaic Period (circa 8,550 years before present to 1,000 Anno Domini)
- Emergent Period (circa 1000 to 1776 Anno Domini)

Paleoindian Period: Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts, possibly indicative of hunting now extinct megafauna. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes left diagnostic Paleoindian markers at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators. Sites from this period are very rare, and most are deeply buried.

Archaic Period: Archaic sites are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, bifacial preforms broken during manufacture, and well-made groundstone bowls and basin metates. Diverse architectural features such as house floors and significant deposits of refuse materials reflect both land- and water-associated subsistence activities. Cultural materials from the Archaic Period include temporally diagnostic forms of beads

and ornaments manufactured from *Haliotis* and *Olivella* shells. Spindle-shaped charmstones are also found. The Archaic Period can be further broken down into lower, middle, and upper phases.

Emergent Period: Sites from this period typically contain lithic scatters from the manufacture of small arrow points, expedient groundstone tools such as tabular metates and unshaped manos, wooden mortars with stone pestles, acorn or mesquite bean granaries, ceramic vessels, shell beads suggestive of extensive trading networks, and steatite implements such as pipes and arrow shaft straighteners. The bow and arrow replace the dart and atlatl at sites from the Emergent Period. Specialized sites of local shell bead manufacturing are recognized by the presence of bead blanks and manufacturing debris, a pattern that might indicate the introduction of monetized systems of exchange.

Ethnohistoric Context

The Bakersfield area is generally considered a part of the traditional homeland of the Southern Valley Yokuts near its northern limits, where the project area is located. The territory of the Southern Valley Yokuts extended from the southern San Joaquin Valley, between the San Joaquin and the lower Kings rivers, and to the Tehachapi Mountains. The Southern Valley Yokuts sustained themselves with fish, waterfowl, shellfish, roots, and seeds found in abundance near the many rivers, lakes, sloughs, and the seasonal marshes. Baskets were important in securing and processing foods, along with nets, sinew-backed bows, stone-tipped arrows, and stone scrapers. Stone mortars, wooden mortars, and pestles were obtained through trade, as were the lithic materials used to make stone tools. Perforated marine shell disks were used as currency. There is no evidence of clay vessel manufacturing among the Southern Valley Yokuts, probably due to their skill in basket making and a preferential use of baskets in daily chores.

The native lifestyle of the Southern Valley Yokuts received little influence from early, casual contacts with Spaniards in the late 1700s and early 1800s. In 1833, however, an epidemic of introduced disease devastated the native population with an estimated 75 percent mortality rate. After the annexation of Alta California by the United States, the decline of Southern Valley Yokuts population and culture accelerated as Euro-American settlers overran the tribal territory and displaced the native people. Eventually, the Southern Valley Yokuts were mostly interned on the Tejon Reservation and, later, the Tule River Reservation.

Regional Historic Context

Spanish and Mexican explorations occurred in the San Joaquin Valley in the early nineteenth century. Despite the repeated explorations, the southern portion of the San Joaquin Valley remained largely devoid of any non-Native American population at the time of American annexation in 1848. The first major “growth spur” in the southern San Joaquin Valley took place between the 1860s and the 1890s, when the ever-increasing number of settlers shifted the focus of regional economy from animal husbandry to dry farming for grains, especially wheat. Meanwhile, the completion of the Southern Pacific Railroad from 1873 to 1876 and the competing San Francisco and San Joaquin Valley Railway from 1895 to 1897 gave rise to a string of towns across the vast stretches of

farmlands. Then, from 1890 to 1910, the grain fields gradually gave way to irrigated orchards and vineyards, which were joined after 1920 by truck farms and cotton fields.

The City of Bakersfield was first incorporated in 1873 and became the county seat the next year. Two years later, the city was disincorporated and was not reincorporated until 1898 (Appendix D). During the twentieth century, San Joaquin Valley farmers distinguished themselves as the leading agricultural producers in California, and in some instances the entire nation. Around 1900, an oil boom along the Kern River brought the Bakersfield area to the forefront of California's budding petroleum industry, although agriculture remained the dominant factor in the area's economy as well as its cultural heritage. However, in the most recent decades, the housing boom has played a pivotal role in the growth of the southern San Joaquin Valley region, turning much of the once-prime farmland into master-planned residential communities.

History of the Project Vicinity

In the mid-nineteenth century, a branched road running generally north–south about a quarter mile to the east of the Project location was the only human-made feature noted in the vicinity. By the turn of the century, scattered roads lined by occasional buildings and other developments had been established in the surrounding area, including an Oil City branch railway line and a canal. The outskirts of the Project location remained sparsely settled and presumably dominated by agriculture and oil extraction in the early and mid-twentieth century.

Historical maps indicate that a building, presumably a farmstead, was in place in the project area by 1935 along today's Airport Drive, joined by two more buildings near Boughton Drive by 1952 and an orchard. By 1968 the presumed farmstead was the only the residence along Airport Drive, with only half of the orchard remaining. The property was clear of buildings and the orchard by 1984. In 1930, census records showed that the property was being farmed with the help of Hawaiian native Fred Nishimoto as a laborer.

The Meadows Field Airport, formerly known as Kern County Airport No. 1, was built by the local Chamber of Commerce in 1926 to transport mail and passengers. Upon its acquisition by Kern County in 1935, it became the first county-owned airport in the nation (Appendix D). During World War II, it became an auxiliary air training facility for the Army Air Corps, and afterward it was returned to the County for commercial use. It was renamed in 1957 after Cecil Meadows, Kern County's then-Director of Airports (Appendix D).

In the 1980s and 1990s, the surrounding area began the transformation from agriculture to suburban residential development, pushing west toward Airport Drive. More residential development occurred on nearby properties during the ensuing decade, including several parcels directly across Airport Drive to the east. Within the Project boundaries, meanwhile, even though all agricultural operations had ceased by the mid-1980s, no major changes have occurred in the overall character of the property.

Existing Cultural Resources

To identify cultural resources and characterize the Project's potential effects on cultural resources, a cultural resources study was completed for the project area, which included retrieving archival records at the Southern San Joaquin Valley Information Center (SSJVIC) at California State University, Bakersfield. In addition to the records search and literature review, Native American Tribal consultation, a Sacred Lands File (SLF) search, and field survey were conducted for the site. The methodology and results of these efforts are summarized in this report subsection.

Records Search

An archival records search was conducted at the SSJVIC on June 6, 2023 (CRM Tech, 2023; Appendix F.2). Sources consulted during the research included published literature in local and regional history, contemporary publications, federal and local real estate records, online genealogical databases, historical maps of the Bakersfield area, and aerial/satellite photographs of the project vicinity. Among the maps consulted were U.S. General Land Office land survey maps dated 1855 and USGS topographic maps dated from 1902 to 1973, which are available at the websites of the U.S. Bureau of Land Management and the USGS. The aerial and satellite photographs, taken between 1952 and 2023, are available at the Nationwide Environmental Title Research website and through Google Earth software.

The results of the records search indicated that the project area had not been previously surveyed for cultural resources, and no cultural resources had been recorded within or adjacent to the Project boundaries. Within the 1-mile scope of the records search, SSJVIC records identified a total of 22 previous studies on various tracts of land and linear features, including a linear survey along the segment of Airport Drive adjacent to the eastern Project boundary (**Figure 4.5-1**). As a result of these past survey efforts, 13 cultural resources were previously recorded within the 1-mile radius, including 12 sites and an isolate (i.e., a locality with fewer than three artifacts), as listed in **Table 4.5-1**.

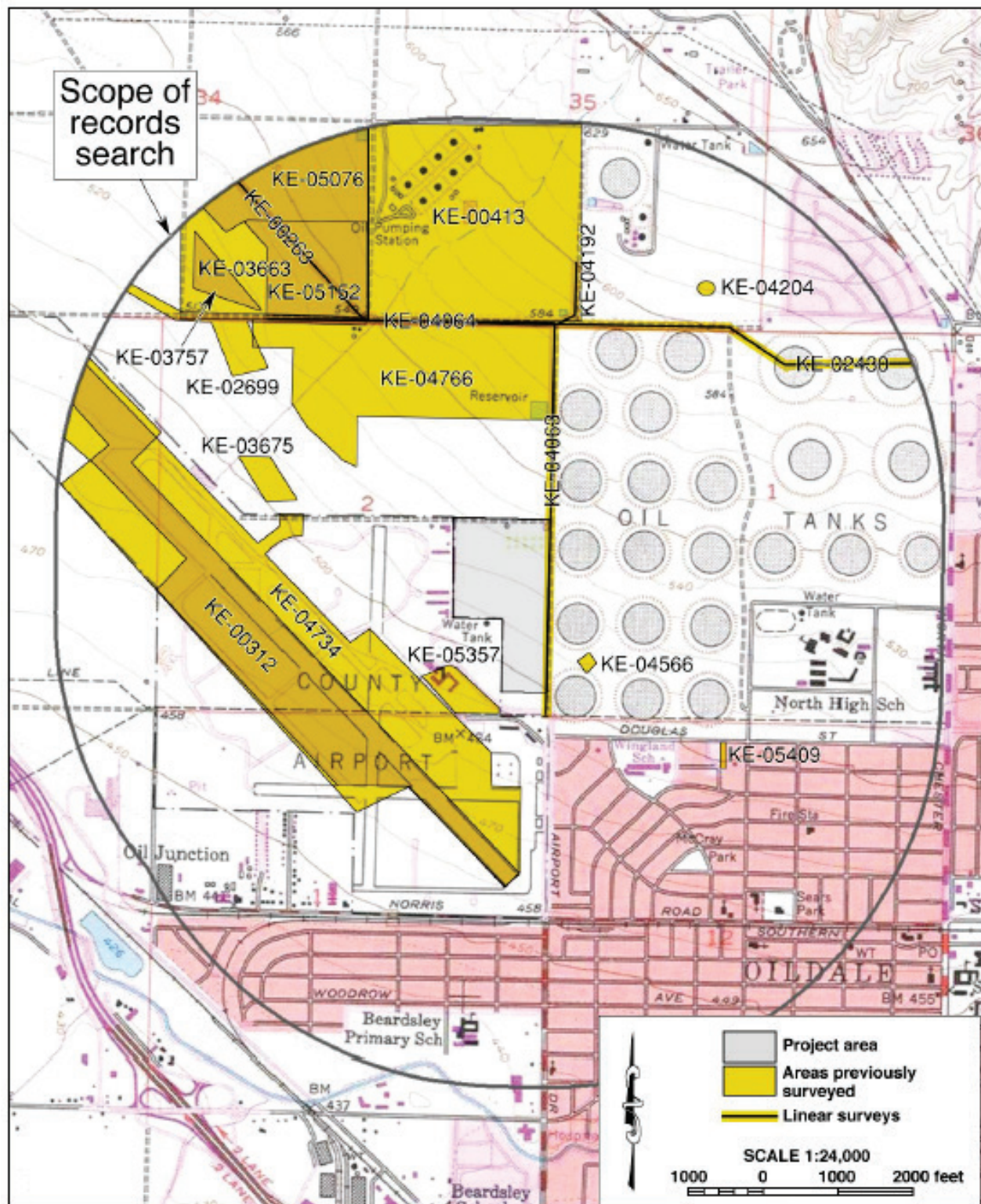
**Table 4.5-1: Previously Recorded Cultural Resources
Within the Scope of the Records Search**

Resource No.	Description
15-003322	Historic-period refuse scatter
15-003323	Historic-period refuse scatter
15-004728	Unnamed railroad siding
15-004734	Beardsley Irrigation Canal
15-008037	Building, date/description unspecified
15-008134	Building, date/description unspecified
15-008184	Building, date/description unspecified
15-008203	Building, date/description unspecified
15-008232	Building, date/description unspecified
15-008249	Building, date/description unspecified
15-008515	Building, date/description unspecified
15-009854	Isolate: piece of amethyst glass

Resource No.	Description
15-021383	Foundation of four-bay parking stalls

All of these known cultural resources dated to the post-Contact (historic) period, and no pre-Contact sites or isolates were recorded within the records search scope. The majority of the sites, numbering seven in total, represented buildings of historical age, although specific dates of construction and descriptions were not provided by the SSJVIC. Other sites included refuse scatters, structural remains, and linear features such as a railroad siding and the Beardsley Irrigation Canal. The one isolate was a piece of sun-colored amethyst glass. All of the previously recorded cultural resources were found at least 0.75 mile from the Project location.

Figure 4.5-1: Cultural Resources Project Study Area



Phase 1 Field Survey

During the field survey, three previously undocumented cultural resources were recorded within the project area and given temporary designations pending assignment of permanent identification numbers in the California Historical Resources Inventory. Two of these resources were of pre-Contact origin, each representing an isolated artifact. The third dated to the post-Contact period and consisted of the remains of a former orchard. No other cultural resources were identified within or adjacent to the Project area. A small amount of modern refuse was observed along the Project boundaries, including cans, bottles, and construction materials, but none of the items was of any historical or archaeological interest.

Isolates 4020-1 and 4020-2: Isolate 4020-1 is a rounded, complete granitic mano encountered in the northeastern corner of the Project area. The mano measures approximately 14 centimeters in diameter and was found in close proximity to the concrete pad and footings recorded at Site 4020-3H. Isolate 4020-2 is a granitic unifacial mano fragment measuring approximately 10 by 9.5 by 6 centimeters in size, located in the central portion of the Project area.

Site 4020-3H: This post-Contact site was recorded in the northeast corner of the Project area. Among the components of the site are the remains of a concrete pad and footings associated with a demolished building, likely a garage, two refuse scatters, and the fragmented remains of a concrete irrigation system used for the orchard that once occupied the property. Feature 1 of the site consists of the concrete pad and footings, which measure approximately 50 feet north–south by 33 feet east–west in total size. The concrete pad, located in the center of the feature, measures approximately 33 feet east–west by 26 feet north–south.

Two refuse scatters were also recorded at the site. One was located near the western site boundary, and the other just to the west of Feature 1. The refuse items present within the scatters included broken glass bottles, rusted can fragments, oil filters, lumber, concrete fragments, and household items such as plates and bowl fragments. Fragments of concrete irrigation pipes and standpipes were observed in the westerly refuse scatter and also scattered across the rest of the site.

Resource Evaluation

Isolates 4020-1 and 4020-2

The pre-Contact isolates discovered during this study consists of a complete granitic mano and a granitic mano fragment, and neither of them had any other associated artifacts or archaeological features nearby. Such isolates, or localities with fewer than three artifacts, by definition do not qualify as archaeological sites because of their lack of contextual integrity. As such, Isolates 4020-1 and 4020-2 do not constitute potential historical resources and require no further consideration.

Site 4020-3H

Site 4020-3H, consisting of a concrete pad and footings, two refuse scatters, and the remnants of an irrigation system from a former orchard, is the only potential historical resource identified in the Project area that requires proper evaluation. With the removal of the buildings and orchard many decades ago, these remains lack sufficient historic integrity to relate to their period of origin.

Furthermore, historical background research during this study uncovered no evidence that these features are closely associated with any persons or events of recognized historic significance, nor do they demonstrate any special merits in design and construction or any particular potential for important archaeological data. In summary, Site 4020-3H does not appear to meet any of the criteria for listing in the CRHR. Therefore, it does not qualify as a historical resource under CEQA provisions.

Native American Consultation

Sacred Lands File Search

The California Native American Heritage Commission (NAHC) maintains a confidential SLF which contains sites of traditional, cultural, or religious value to the Native American communities. In an effort to determine whether any sacred sites are listed on its SLF, CRM Tech contacted the NAHC for a SLF search for the Project on May 25, 2023. In response to CRM Tech's inquiry, the NAHC stated in a letter dated June 21, 2023, that the SLF search identified no Native American cultural resources in the Project vicinity. Noting that the absence of specific information does not preclude the presence of cultural resources in the vicinity, the commission recommended contacting local Native American groups for pertinent information and proceeded to provide a referral list of nine individuals associated with five local Native American groups.

Assembly Bill No. 52 Tribal Consultation

On August 8, 2023, pursuant to AB 52, Kern County sent consultation notification letters via certified mail to four California Native American tribal contacts on the County's Master List for AB 52 consultation. Consultation letters were sent to contacts for the Tejon Indian Tribe, the Torres Martinez Desert Cahuilla Indians, the Twenty-Nine Palms Band of Mission Indians, and the Yuhaaviatam of San Manuel Nation. No responses were received from the above listed Native American tribes during the 30-day consultation inquiry period, which ended September 8, 2023. The Project's potential impacts on tribal cultural resources are addressed in Section 4.18, *Tribal Cultural Resources*.

Native American Consultation Summary

No known cemeteries or burial sites are located within the Project vicinity and no responses to the consultation notification letters were received. No Native American sacred sites or human burials are known to be located within the Project site boundaries, and no responses to the consultation notification letters were received.

4.5.3 Regulatory Setting

Federal

National Historic Preservation Act of 1966

Enacted in 1966, the National Historic Preservation Act (NHPA) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the NRHP, established the position of State Historic Preservation Office and provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, established assistance for the preservation of Native American cultural heritage, and created the Advisory Council on Historic Preservation (ACHP). Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations Part 800, on such undertakings.

National Register of Historic Places

As presented in 36 Code of Federal Regulations 60.2, the NRHP was established by the NHPA of 1966 as “an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation’s cultural resources and to indicate what properties should be considered for protection from destruction or impairment.” The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- **Criterion A:** It is associated with events that have made a significant contribution to the broad patterns of our history.
- **Criterion B:** It is associated with the lives of persons who are significant in our past.
- **Criterion C:** It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- **Criterion D:** It has yielded, or may be likely to yield, information important in prehistory or history.

Cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations;

reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

State

California Environmental Quality Act

CEQA requires the assessment of a project's effects on cultural resources. Pursuant to CEQA, a historical resource is a resource listed in, or eligible for listing in, the CRHR. In addition, resources included in a local register of historic resources or identified as significant in a local survey conducted in accordance with State guidelines are also considered historic resources under CEQA, unless a preponderance of the facts demonstrates otherwise. Properties listed in or formally determined eligible for listing in the NRHP are automatically included in the CRHR. According to CEQA, the fact that a resource is not listed in or determined eligible for listing in the CRHR or is not included in a local register or survey shall not preclude a lead agency, as defined by CEQA, from determining that the resource may be a historical resource as defined in California PRC Section 5024.1. CEQA applies to archaeological resources when (1) the archaeological resource satisfies the definition of a historical resource, or (2) the archaeological resource satisfies the definition of a unique archaeological resource. A unique archaeological resource is an archaeological artifact, object, or site that has a high probability of meeting any of the following criteria:

- The archaeological resource contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information.
- The archaeological resource has a special and particular quality such as being the oldest of its type or the best available example of its type.
- The archaeological resource is directly associated with a scientifically recognized important event or person of the past.

California Register of Historical Resources

Under the California PRC, Section 5024.19(a), the CRHR was created in 1992 and implemented in 1998 as “an authoritative guide in California to be used by State and local agencies, private groups, and citizens to identify the State’s historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change.” Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical resources surveys or designated by local landmarks programs, may be nominated for inclusion in the CRHR. A resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission (SHRC) determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1.** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- **Criterion 2.** It is associated with the lives of persons important in our past.
- **Criterion 3.** It embodies the distinctive characteristics of a type, period, region, or method of construction; represents the work of an important creative individual; or possesses high artistic values.
- **Criterion 4.** It has yielded, or may be likely to yield, information important in history or prehistory.

Furthermore, under PRC Section 4852(c), a cultural resource must retain integrity to be considered eligible for the CRHR. Specifically, it must retain sufficient character or appearance to be recognizable as a historical resource and convey reasons of significance. Integrity is evaluated with regard to retention of such factors as location, design, setting, materials, workmanship, feeling, and association. Cultural sites that have been affected by ground-disturbing activities, such as grazing and off-road vehicle use (both of which have occurred within the project site), often lack integrity because they have been directly damaged or removed from their original location, among other changes.

Typically, an archaeological site in California is recommended eligible for listing in the CRHR based on its potential to yield information important about the region's past (Criterion 4). Important information includes chronological markers such as Projectile point styles or obsidian artifacts that can be subjected to dating methods or undisturbed deposits that retain their stratigraphic integrity. Sites such as these have the ability to address research questions.

California Historical Landmarks

California Historical Landmarks (CHLs) are buildings, structures, sites, or places that have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value and that have been determined to have statewide historical significance by meeting at least one of the criteria listed below. The resource also must be approved for designation by the County Board of Supervisors (or the city or town council in whose jurisdiction it is located), be recommended by the SHRC, and be officially designated by the Director of California State Parks. The specific standards now in use were first applied in the designation of CHL No. 770. CHLs No. 770 and above are automatically listed in the CRHR.

To be eligible for designation as a landmark, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type in the State or within a large geographic region (Northern, Central, or Southern California).
- It is associated with an individual or group having a profound influence on the history of California.

- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in a region of a pioneer architect, designer, or master builder.

California Points of Historical Interest

California Points of Historical Interest are sites, buildings, features, or events that are of local (city or county) significance and have anthropological, cultural, military, political, architectural, economic, scientific or technical, religious, experimental, or other value. Points of historical interest designated after December 1997 and recommended by the SHRC are also listed in the CRHR. No historic resource may be designated as both a landmark and a point. If a point is later granted status as a landmark, the point designation will be retired. In practice, the point designation program is most often used in localities that do not have a locally enacted cultural heritage or preservation ordinance.

To be eligible for designation as a point of historical interest, a resource must meet at least one of the following criteria:

- It is the first, last, only, or most significant of its type within the local geographic region (city or county).
- It is associated with an individual or group having a profound influence on the history of the local area.
- It is a prototype of, or an outstanding example of, a period, style, architectural movement or construction or is one of the more notable works or the best surviving work in the local region of a pioneer architect, designer, or master builder.

Native American Heritage Commission

Section 5097.91 of the California PRC established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the PRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

California Public Records Act

Sections 6254(r) and 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.” Section 6254.10 specifically exempts from disclosure requests for “records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the SHRC, the State Lands Commission, the NAHC, another

State agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a State or local agency.”

Health and Safety Code, Sections 7050 and 7052

Health and Safety Code, Section 7050.5, declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

California Penal Code, Section 622.5

The California Penal Code, Section 622.5, provides misdemeanor penalties for injuring or destroying objects of historic or archaeological interest located on public or private lands, but specifically excludes the landowner.

California Public Resources Code Section 5097.98

California PRC Section 5097.98, as amended, provides procedures in the event human remains of Native American origin are discovered during project implementation. PRC Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. PRC Section 5097.98 further requires the NAHC, upon notification by a county coroner, designate and notify a Most Likely Descendant regarding the discovery of Native American human remains. The Most Likely Descendant has 48 hours from the time of being granted access to the site by the landowner to inspect the discovery and provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the landowner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

Assembly Bill 52 and Related Public Resources Code Sections

AB 52 was approved by California State Governor Edmund Gerry “Jerry” Brown, Jr. on September 25, 2014. The act amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a Notice of Preparation or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration will be filed on or after July 1, 2015. The primary intent of AB 52 was to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as tribal cultural resources. PRC Section 21074(a)(1) and (2) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with

cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. On July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes who are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency (PRC Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency’s formal notification and the lead agency must begin consultation within 30 days of receiving the tribe’s request for consultation (PRC Sections 21080.3.1(d) and 21080.3.1(e)).

PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary, the significance of tribal cultural resources, the significance of the Project’s impacts on the tribal cultural resources, Project alternatives or appropriate measures for preservation, and mitigation measures. Consultation is considered concluded when either (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Section 21080.3.2(b)).

If a California Native American Tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American Tribe has failed to request consultation within 30 days, the lead agency may certify an EIR or adopt a Mitigated Negative Declaration (PRC Section 21082.3(d)(2) and (3)).

PRC Section 21082.3(c)(1) states that any information (including the location, description, and use of the tribal cultural resources) that is 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 without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American Tribe during the consultation or environmental review process, that information 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.

Local

Metropolitan Bakersfield General Plan

The Project is within the administrative boundaries of the Metropolitan Bakersfield General Plan and would therefore be subject to its applicable policies and measures. The Land Use Element includes the following policies related to cultural resources that would apply to the Project:

Policies

Policy 5: Provide for streetscape improvements, landscape, and signage which uniquely identify major and/or historic residential neighborhoods.

Policy 7: Provide for the retention of historic residential neighborhoods as identified in the Historical Resources Element if adopted by the City of Bakersfield.

Policy 27: Require that new commercial uses maintain visual compatibility with single-family residences in areas designated for historic preservation.

Policy 72: Promote the creation of both residential and commercial historic districts, and encourage the upgrading of historic structures.

Policy 104: As part of the environmental review procedure, an evaluation of the significance of paleontological, archaeological, and historical resources and the impact of proposed development on those resources shall be conducted and appropriate mitigation and monitoring included for development Projects.

Policy 106: The preservation of significant historical resources as identified on Table 4.10-1 [Metropolitan Bakersfield General Plan, 2007:II-19] shall be encouraged by developing and implementing incentives such as building and planning application permit fee waivers, Mills Act contracts, grants and loans, implementing the State Historic Building Code and other incentives as identified in the City's Historic Preservation Ordinance.

Policy 107: The preservation of significant historical resources shall be promoted and other public agencies or private organizations shall be encouraged to assist in the purchase and/or relocation of sites, buildings, and structures deemed to be of historical significance.

4.5.4 Impacts and Mitigation Measures

Methodology

This analysis is based on a variety of resources, including the Phase I Historical/Archaeological Resources Survey and Paleontological Resources Assessment Report prepared by CRM Tech (CRM Tech, 2023; Appendix F.2), an SLF search conducted by the NAHC, and AB 52 notification letters to solicit information regarding the presence of tribal cultural resources. Using the aforementioned resources and professional judgment, impacts were analyzed according to CEQA significance criteria described in this report subsection.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist state that a project would normally be considered to have a significant impact if it would meet either of the following criteria:

- It would cause a substantial adverse change in the significance of a historical or archaeological resource pursuant to CEQA Guidelines Section 15064.5.
- It would disturb any human remains, including those interred outside of formal cemeteries.

Section 21083.2(g) of CEQA further defines “unique archaeological resources” to determine whether a project may have a significant effect on archaeological resources. As used in this section, a unique archaeological resource is an archaeological artifact, object, or site that does not merely add to the current body of knowledge; it has a clearly demonstrated and a high probability that it meets any of the following criteria:

- It contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.
- It has a special and particular quality such as being the oldest of its type or the best available of its type.
- It is directly associated with a scientifically recognized important event or person of the past.

According to CEQA Guidelines, California Code of Regulations Title 14, 15064.5, a project with an effect 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 (California Code of Regulations Title 14, 15064.5(b)). The guidelines further state that a substantial adverse change in the significance of a resource means the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historic resource would be materially impaired. Actions that would materially impair the significance of a historical resource are any actions that would demolish or adversely alter those physical characteristics of a

historical resource that convey its historical significance and qualify it for inclusion in the CRHR or in a local register or survey that meet the requirements of PRC Sections 5020.1(k) and 5024.1(g).

Project Impacts

Impact 4.5-1: The project would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.

Historic resources in this context refer to the built environment, mainly buildings and structures more than 45 years of age that may be eligible for inclusion on the CRHR or NRHP. The records search conducted at SSJVIC identified 13 cultural resources dated to the historic period within 1 mile of the Project area. All of the recorded resources were found at least 0.75 mile from the Project location. The pedestrian survey identified a historic-period site in the northeast corner of the Project area, but with the removal of the buildings and orchards many decades ago, these remains lack sufficient historic integrity to relate to their period of origin. Without these features and associated persons or events of recognized historic evidence, the historical site discovered does not appear to meet any of the criteria for listing in the CRHR. Accordingly, the Project would not have an adverse impact on historic-period built environment resources.

Though unlikely, subsurface construction activities always have the potential to damage or destroy previously undiscovered historic resources such as wood, stone, foundations, and other structural remains; debris filled wells or privies; and deposits of wood, glass, ceramic, and other refuse, if encountered. This would represent a potentially significant impact related to historic resources. However, implementation of **Mitigation Measures MM 4.5-1** through **MM 4.5-3** would reduce potential direct and indirect impacts to historic resources that may be discovered during Project construction to less than significant.

Mitigation Measures

MM 4.5-1 Prior to initial ground disturbance, or the issuance of grading permits, the Project applicant shall retain a qualified Lead Archaeologist to carry out all mitigation measures related to archaeological resources. The contact information for this Lead Archaeologist shall be provided to the Kern County Planning and Natural Resources Department prior to the commencement of any construction activities on-site. Further, the Lead Archaeologist, shall be responsible for ensuring the following employee training provisions are implemented during implementation of the Project:

- a. Prior to commencement of any ground disturbing activities, the Lead Archaeologist shall prepare Cultural Resources Sensitivity Training materials, including a Cultural Resources Sensitivity Training Guide, to be used in an orientation program given to all personnel working on the Project. The training guide may be presented in video form. A copy of the proposed training materials, including the Cultural Resources Sensitivity Training Guide, shall

be provided to the Planning and Natural Resources Department prior to the issuance of any grading or building permit.

- b. The Project proponent/operator shall ensure all new employees or on-site workers who have not participated in earlier Cultural Resources Sensitivity Trainings shall meet provisions specified above.
- c. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the Lead Archaeologist for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources.
- d. A copy of the Cultural Resources Sensitivity Training Guide/Materials shall be kept on-site and available for all personnel to review and be familiar with as necessary. It is the responsibility of the Lead Archaeologist to ensure all employees receive appropriate training before commencing work on-site.

MM 4.5-2 The project proponent shall comply with the following in the event of inadvertent discovery of resources occur during implementation of the Project. Prior to the issuance of grading permits, the Project proponent shall ensure the following measures are implemented for resources, which are discretionarily considered historical resources for the purposes of this Project:

- a. The construction zone shall be narrowed or otherwise altered to avoid resources. All avoidance areas delineated on the site plan shall be coordinated through the lead archeologist and submitted to the Kern County Planning and Natural Resources Department for approval.
- b. In coordination with the qualified archaeologist avoidance shall be ensured by the delineation of environmentally sensitive areas. Protective fencing shall not identify the protected area as a cultural resource area in order to discourage unauthorized disturbance or collection of artifacts.
- c. A qualified Archaeologist and Native American Monitor shall monitor all Project-related ground disturbing activities within 150 feet of the environmentally sensitive areas, in order to ensure avoidance. The Native American monitor shall be selected from a list of Native American contacts with traditional ties to the Project area, provided by the Native American Heritage Commission and/or consultation with Native American tribal groups who may have interest in the Project area. The archaeological monitor shall work under the supervision of the qualified archaeologist.
- d. If avoidance is demonstrated to be infeasible, the resource shall be collected and curated at an appropriate curatorial facility. Or if avoidance is demonstrated to be infeasible, a detailed Cultural Resources Treatment Plan shall be prepared and implemented by a qualified archaeologist. The Cultural

Resources Treatment Plan shall include a research design and a scope of work for data recovery of the portion(s) to be impacted by the Project. Treatment may consist of (but would not be limited to):

1. a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed;
2. sample excavation;
3. surface artifact collection;
4. site documentation; and,
5. historical research, with the aim to target the recovery of important scientific data contained in the portion of the significant resource to be impacted by the Project.
6. The Cultural Resources Treatment Plan shall also include provisions for analysis of data in a regional context, reporting of results within a timely manner, and curation of artifacts and data at an approved facility. The reports documenting the implementation of the Cultural Resources Treatment Plan shall be submitted to and approved by the Kern County Planning and Natural Resources Director and shall also be submitted to the Southern San Joaquin Valley Information Center at California State University, Bakersfield.

Level of Significance After Mitigation

Impacts would be less than significant with mitigation.

Impact 4.5-2: The project would cause a substantial adverse change in the significance of an archeological resource as defined in Section 15064.5.

Records search results from the SSJVIC for the Project boundaries identify 12 historic-period sites or isolates; however, they were found at least 0.75 mile from the Project location. Furthermore, the SLF search conducted by the NAHC did not reveal any Native American cultural resources within the Project site. On July 17, 2023, a pedestrian survey was attempted; however, access to the Project site was limited because the survey area was overgrown with vegetation, creating impassible conditions and extremely poor ground visibility. Vegetation removal was performed prior to a second field survey on August 2, 2023. During the survey, isolates were discovered (Isolates 4020-1 and 4020-2), further described in Section 4.5.2, Environmental Setting. However, such isolates, or localities with fewer than three artifacts, by definition, do not qualify as archaeological sites because of their lack of contextual integrity.

Construction, grading and excavation activities have the potential to unearth previously undiscovered, intact archaeological materials. If such materials, including human remains, are found, a potentially significant impact may occur.

Therefore, **MM 4.5-1** through **MM 4.5-3** would be implemented to address potential impacts to archaeological resources during construction.

Mitigation Measures

Implementation of **MM 4.5-1** and **MM 4.5-2** would be required.

Level of Significance After Mitigation

Impacts would be less than significant after implementation of **MM 4.5-1** and **MM 4.5-2**.

Impact 4.5-3: The project would disturb any human remains, including those interred outside of formal cemeteries.

Although no formal cemeteries or areas containing human remains are known to be in the Project vicinity, the possibility always exists that construction-related ground disturbance may uncover previously undiscovered human remains.

In the unlikely event such a discovery is made, CEQA Guidelines Section 15064.5, Health and Safety Code Section 7050.5, and PRC Sections 5097.94 and Section 5097.98 must be followed. Implementation of **Mitigation Measure MM 4.5-3**, which details inadvertent discovery of human remains procedures, would reduce potential impacts of previously undiscovered human remains to a less than significant level.

Mitigation Measures

MM 4.5-3 If human remains are uncovered during Project construction, the Project applicant shall immediately halt work, contact the Kern County Coroner to evaluate the remains, and follow the procedures and protocols set forth in California Environmental Quality Act Guidelines Section 15064.5(e)(1). Notification shall be made to the Kern County Planning and Natural Resources Department within 12 hours of contacting the Coroner. If the County Coroner determines the remains are Native American, the Coroner shall contact the Native American Heritage Commission, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by Assembly Bill 2641). The Native American Heritage Commission shall designate a Most Likely Descendant for the remains per Public Resources Code 5097.98. Per Public Resources Code 5097.98, the landowner shall ensure that the immediate vicinity, according to generally accepted cultural or archaeological standards or practices, where the Native American human remains are located, is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the Most Likely Descendant regarding their recommendations, if

applicable, taking into account the possibility of multiple human remains. If the remains are determined to be neither of forensic value to the Coroner, nor of Native American origin, provisions of the California Health and Safety Code (7100 et seq.) directing identification of the next of kin shall apply. No work shall recommence on the site until all provisions of these reviews have occurred.

Level of Significance After Mitigation

Impacts would be less than significant after implementation of **MM 4.5-3**.

4.5.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the project site.

The geographic context for this analysis includes the southern San Joaquin Valley, in unincorporated Kern County. Past, present, and future development projects contribute to impacts on cultural or tribal cultural resources. As analyzed in the Metropolitan Bakersfield General Plan, there could be a cumulative impact in the County, with respect to historical, archaeological, and cultural resources, as a result of future development and related construction activities in the region. However, potential cumulative impacts would be mitigated to below a level of significance at an individual Project level by adherence to applicable current State and federal laws and regulations, as well as other applicable laws, regulations and mitigations, such as adherence to standard conditions of approval that require monitoring of construction sites in proximity to known resources, immediate cessation of construction activity upon discovery of unidentified human remains, and the protection of cultural resources that are discovered, as described in the mitigation measures above. Moreover, the Project's incremental contribution to less than significant cumulative impacts would not be cumulatively considerable or significant given all projects of similar scope will also adhere to similar development standards in this regard.

The combination of the aforementioned and described efforts, standard construction conditions and implementation of **Mitigation Measures MM 4.5-1** through **MM 4.5-3** would reduce potential cumulative impacts related to historical, archaeological, and cultural resources to a less than significant level.

Mitigation Measures

Implementation of **MM 4.5-1** through **MM 4.5-3** would be required.

Level of Significance After Mitigation

With implementation of **MM 4.5-1** through **MM 4.5-3**, cumulative impacts would be less than significant.

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Section 4.6

Energy

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4.6.1 Introduction

This section of the Draft Environmental Impact Report (EIR) analyzes the energy implications associated with implementation of the proposed IPG Industrial Project (Project), focusing on the following energy resources:

- Electricity
- Natural gas
- Transportation-related energy (petroleum-based fuels)

Additionally, this section includes a summary of the Project's anticipated energy needs and identifies mitigation measures that would reduce impacts, if necessary.

This section is informed by the May 23, 2024, Airport Drive Warehouse Energy Analysis prepared by Urban Crossroads, Inc. (Appendix E). The information found herein, as well as other aspects of the Project's environmental-related energy impacts, are discussed in greater detail in other sections of this Draft EIR: Chapter 3, *Project Description*, Section 4.3, *Air Quality*, and Section 4.8, *Greenhouse Gas Emissions*.

Further, this section provides the content and analysis required by Public Resources Code (PRC), Section 21100(b)(3), and described in Appendix F to the California Environmental Quality Act (CEQA) Guidelines [Association of Environmental Planners (AEP) 2024]. PRC Section 21100(b) and Section 15126.4 of the CEQA Guidelines require an EIR to identify mitigation measures to minimize a project's significant effects on the environment, including measures to reduce the wasteful, inefficient, and unnecessary consumption of energy.

Appendix F states that the potential energy implications of a project shall be considered in an EIR, to the extent relevant and applicable to the project. Further, Appendix F states that a project's energy consumption and proposed conservation measures may be addressed, as relevant and applicable, in the Project Description, Environmental Setting and Impact Analysis, portions of technical sections, as well as through mitigation measures and alternatives.

In late 2018, the California Natural Resources Agency finalized updates to the 2018 CEQA Guidelines (California Natural Resources Agency 2018). Appendix G was amended to now include the analysis of energy. Previously included in Appendix F, the Appendix G Checklist now provides questions to determine the following: whether a project could result in wasteful energy resource consumption during its construction or operation; or whether a project conflicts with State or local renewable energy or energy efficiency plans (California Natural Resources Agency 2018).

4.6.2 Environmental Setting

Electricity

Electricity, a consumptive utility, is a human-made resource. The production of electricity requires the consumption or conversion of energy resources, including water, wind, oil, gas, coal, solar, geothermal, and nuclear resources, into energy. The delivery of electricity involves a number of system components for distribution and use. The electricity generated is distributed through a network of transmission and distribution lines, commonly called a power grid.

Energy capacity, or electrical power, is generally measured in watts (W), while energy use is measured in watt-hours (Wh). For example, if a light bulb has a capacity rating of 100 W, the energy required to keep the bulb on for 1 hour would be 100 Wh. If 10 100 W bulbs were on for 1 hour, the energy required would be 1,000 Wh, or 1 kilowatt-hour (kWh). On a utility scale, a generator's capacity (the potential to generate) is typically rated in megawatts (MW), which is 1 million watts; while energy usage is measured with a time component, typically in megawatt-hours (MWh) or gigawatt-hours (GWh), which is 1 billion watt-hours.

Retail electric service in Kern County is split between Pacific Gas and Electric (PG&E) and Southern California Edison. The Project is located in PG&E's electric service territory. Accordingly, electric power for construction and operations would be brought to the site through a PG&E service connection.

PG&E is an investor-owned utility company that provides natural gas and electric service to approximately 16 million people throughout a 70,000-square-mile service area in northern and central California, including Kern County (County) (PG&E 2024a). In 2022, approximately 38% of PG&E's electricity came from renewable resources including solar, wind, geothermal, biomass, and small hydroelectric sources. Additionally, approximately 95% of PG&E's total electric power mix is from greenhouse gas (GHG) free sources, which include nuclear and large hydroelectric sources of energy (CEC 2024a).

The California Energy Commission (CEC) tracks electricity and natural gas consumption across the State of California for residential and nonresidential sources. In 2022, the County used a total of 14,861 GWh of electricity. Approximately 81% of the electricity usage in the County came from nonresidential sources (CEC 2024b).

Natural Gas

Natural gas is a combustible mixture of simple hydrocarbon compounds (primarily methane) that is used as a fuel source. Natural gas consumed in California is obtained from naturally occurring reservoirs and delivered through high-pressure transmission pipelines. Natural gas provides almost one-third of the state's total energy requirements. Natural gas is measured in terms of cubic feet (cf), therms, or British thermal units (BTU).

PG&E provides natural gas in the vicinity of the Project. Per the CEC, the County used a total of 1,774 million therms of natural gas in 2022. Approximately 94% of the natural gas use in the County came from nonresidential sources (CEC 2024c).

Transportation

In California, petroleum fuels refined from crude oil are the dominant source of energy for transportation sources. Petroleum usage in California includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. The State has implemented a number of policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutant and GHG emissions from the transportation sector, and reduce vehicle miles traveled (VMT). The CEC predicts a decline in demand for gasoline and an increase in the use of alternative fuels (Bailey et al. 2023). According to the California Air Resources Board's (CARB's) EMFAC2021 Web Database, which estimates the emissions inventory of on-road mobile sources in California, Kern County on-road transportation sources consumed approximately 410 million gallons of gasoline and 268 million gallons of diesel fuel in 2022 (CARB 2024).

4.6.3 Regulatory Setting

Federal

Energy Policy and Conservation Act of 1975 and Alternative Motor Fuels Act of 1988

Enacted in 1975, the Energy Policy and Conservation Act (EPCA) established the first fuel economy standards for on-road motor vehicles sold in the United States and assigned responsibility for establishing and revising vehicle fuel economy standards to the National Highway Traffic Safety Administration (NHTSA). The Alternative Motor Fuels Act of 1988 amended a portion of the EPCA to encourage the use of alternative fuels, including electricity. The act directs the secretary of energy to take action to ensure that the maximum practical number of federal passenger vehicles and light-duty trucks be powered by alcohol or natural gas or be dual-fueled vehicles.

Energy Policy Acts of 1992 and 2005

The Energy Policy Act of 1992 established goals and mandates to increase the use of clean energy in the United States while also amending utility laws and requiring improvements in building and vehicle energy efficiency. The Energy Policy Act of 2005 provided tax incentives and loan guarantees for alternative energy sources such as wind and geothermal. Additionally, the Act set targets for the quantity of biofuels to be mixed with gasoline, resulting in a significant increase in ethanol production.

Energy Independence and Security Act of 2007

Enacted in December 2007, the Energy Independence and Security Act (EISA) aimed to move the United States toward greater energy independence through the following:

- Increasing the production of clean renewable fuels
- Increasing the efficiency of products, buildings, and vehicles
- Improving the energy performance of the federal government
- Improving vehicle fuel economy

The EISA included the first increase in fuel economy standards for passenger cars since 1975 and included a new energy grant program for use by local governments in implementing energy-efficiency initiatives as well as a variety of green building incentives and programs.

Corporate Average Fuel Economy and Vehicle Fuel Efficiency Standards

Established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) standards reduce energy consumption by increasing the fuel economy of cars and light trucks (collectively, light-duty vehicles). The NHTSA CAFE standards regulate how far vehicles must travel on a gallon of fuel. The NHTSA and United States Environmental Protection Agency (EPA) jointly administer the CAFE standards (NHTSA 2024). The U.S. Congress has specified that CAFE standards must be set at the “maximum feasible level” with consideration given for the following:

- Technological feasibility
- Economic practicality
- Effect of other standards on fuel economy
- Need for the nation to conserve energy

The CAFE standards have been rolled out in multiple phases.

The first phase included final standards for model years 2017 through 2021. In 2012, the agencies jointly adopted more stringent Phase 2 standards for light-duty cars and trucks, which apply to model years 2017 through 2025. In April 2022, the NHTSA announced new light-duty vehicle fuel economy standards for model years 2024 through 2026, which would require an industry-wide fleet average of approximately 49 miles per gallon in model year 2026. Announced in June 2024, the most recent CAFE standards would require an industry-wide fleet average of approximately 50.4 miles per gallon in model year 2031 for passenger cars and light trucks. The final CAFE standards increase 2% per year for passenger cars in model years 2027 through 2031 and 2% per year for light trucks in model years 2029 through 2031 (NHTSA 2024).

The NHTSA and the EPA have jointly developed fuel efficiency standards for medium- and heavy-duty trucks. The Phase 1 heavy-duty truck standards applied to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018. In August of 2016, the agencies adopted more stringent Phase 2 standards for medium- and heavy-duty vehicles. These standards apply to model years 2018 through 2027 for certain trailers and model years 2021 through 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The Phase 2 heavy-duty truck standards require the phase-in of a 5% to 25% reduction in

fuel consumption over the 2017 baseline, depending on the compliance year and vehicle type (EPA and NHTSA 2016).

The most recent fuel efficiency standards for heavy-duty pickup trucks and vans, announced in June 2024, would require an industry-wide fleet average of an estimated 2.851 gallons per 100 miles in model year 2035. The final fuel efficiency standards for heavy-duty pickup trucks and vans increase at a rate of 10% per year in model years 2030 through 2032 and 8% per year in model years 2033 through 2035 (NHTSA 2024).

Inflation Reduction Act of 2022

The Inflation Reduction Act (IRA) of 2022 is considered the most ambitious climate law in U.S. history and is intended to reduce GHG emissions, help build a clean economy, reduce energy costs for Americans, and advance environmental justice. With funding from the IRA, the EPA launched a network of clean energy financing and provided grant funding for pollution-reduction programs (EPA 2023).

State

Warren-Alquist Energy Resources Conservation and Development Act

Initially passed in 1974 and since amended, the Warren-Alquist Energy Resources Conservation and Development Act (Warren-Alquist Act) created the CEC, California's primary energy policy and planning agency. The CEC has seven responsibilities:

- Forecasting future energy needs
- Promoting energy efficiency and conservation through setting standards
- Supporting energy-related research
- Developing renewable energy resources
- Advancing alternative and renewable transportation fuels and technologies
- Certifying thermal power plants 50 MW or larger
- Planning for and directing State response to energy emergencies

The CEC regulates energy resources by encouraging and coordinating research into energy supply and demand problems to reduce the rate of growth of energy consumption. Additionally, the Warren-Alquist Act acknowledges the need for renewable energy resources and encourages the CEC to explore renewable energy options that would be in line with environmental and public safety goals (PRC Section 25000 et seq.).

Senate Bill 1389

Senate Bill (SB) 1389 (PRC Sections 25300–25323; SB 1389) requires the CEC to prepare a biennial integrated energy policy report that assesses major energy trends and issues facing the state's electricity, natural gas, and transportation fuel sectors. Further, the report provides policy

recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the state's economy; and protect public health and safety (PRC Section 25301[a]). The 2023 Integrated Energy Policy Report provides the results of the CEC's assessments of a variety of energy issues facing California. These include speeding connection of clean resources to the electricity grid, the potential use of clean and renewable hydrogen, and the California Energy Demand Forecast to 2040, gas decarbonization, energy efficiency, the Clean Transportation Program, Assembly Bill (AB) 1257, and publicly owned utilities' progress toward peak demand reserves and margins (Bailey et al. 2023).

Title 24 of the California Code of Regulations (California Building Code)

The California Building Energy Efficiency Standards serve to reduce statewide wasteful, uneconomical, and unnecessary uses of energy. They include requirements in the Energy Code (California Code of Regulations [CCR], Title 24, Part 6) and California Green Building Standards Code (CALGreen Code) (CCR, Title 24, Part 11).

The Energy Code applies to new construction of both residential and nonresidential buildings, and regulates energy consumed for heating, cooling, ventilation, water heating, and lighting. The building efficiency standards are enforced through the local building permit processes, and local government agencies may adopt and enforce energy standards for new buildings, provided that these standards meet or exceed those provided in the Title 24 guidelines. The Energy Code is updated every three years, with the 2022 Building Energy Efficiency Standards that became effective on January 1, 2023, being the most recent approved update.

The CALGreen Code is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went into effect on August 1, 2009, and is administered by the California Building Standards Commission. The CALGreen Code is updated on a regular basis, with the 2022 California Green Building Code Standards that became effective on January 1, 2023, being the most recent approved update.

Assembly Bill 1493 Pavley Regulations and Fuel Efficiency Standards

Enacted on July 22, 2002, AB 1493 required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light-duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from noncommercial passenger vehicles (cars and light-duty trucks). Although the bill is aimed specifically at reducing GHG emissions, a co-benefit of the Pavley standards is an improvement in fuel efficiency and thus a reduction in fuel consumption.

California Renewables Portfolio Standard (SB 100)

California's Renewables Portfolio Standard (RPS) was initially established in 2002 by SB 1078 and requires electricity providers (utilities, cooperatives, community choice aggregators) to provide a specified minimum portion of their electricity supply from eligible renewable resources by milestone target years. State legislative actions have since modified and accelerated the RPS several times, resulting in one of the most ambitious renewable energy standards in the country. In October 2015, SB 350 increased the State's renewable electricity procurement goal from 33% by 2020 to

50% by 2030. In addition, the State is required to double statewide energy-efficiency savings in electricity and natural gas end uses by 2030.

In December 2021, SB 100 increased the renewable electricity procurement goal set by SB 350 from 50% to 60% by 2030 with new interim targets of 44% by 2024 and 52% by 2027. Additionally, SB 100 requires renewable energy and zero-carbon electricity system to supply 100% of electric retail sales by 2045 (CPUC 2024).

The California Public Utilities Commission (CPUC) and CEC jointly implement the RPS program. The CPUC implements and administers RPS compliance rules for California's retail sellers of electricity, which include large and small investor-owned utilities, electric service providers and community choice aggregators. The CEC is responsible for the certification of electrical generation facilities as eligible renewable energy resources and adopting regulations for the enforcement of RPS procurement requirements of publicly owned utilities (CPUC 2024).

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to diesel particulate matter emissions (Title 13 CCR Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than 5 minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

Assembly Bill 32 & Senate Bill 32

In 2006, the California State Legislature adopted AB 32 (codified in the California Health and Safety Code, Division 25.5—California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. CARB has the primary responsibility for reducing statewide GHG emissions; however, AB 32 also tasked the CEC and the CPUC with providing information, analysis, and recommendations to CARB regarding strategies to reduce GHG emissions in the energy sector.

In 2016, SB 32 and its companion bill AB 197 amended Health and Safety Code Division 25.5, established a new climate pollution reduction target of 40% below 1990 levels by 2030, and included provisions to ensure that the benefits of state climate policies reach into disadvantaged communities.

Low Carbon Fuel Standard

In 2007, Executive Order S-01-07 established the Low Carbon Fuel Standard (LCFS), which requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25% in 2011 and culminating in a 10% total reduction in 2020. Petroleum importers,

refiners, and wholesalers have two options: develop their own low-carbon fuel products; or buy LCFS credits from other companies that develop and sell low-carbon alternative fuels, such as biofuels, electricity, natural gas and hydrogen. CARB is responsible for administering the LCFS.

The LCSF regulation was amended in 2018 to require a 20% reduction in the carbon intensity of transportation fuels by 2030 and expand the fuel types and activities eligible to participate in the LCFS (CARB 2018a).

Senate Bill 375; Sustainable Communities Strategy

SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle and light-duty truck GHG emissions. Through the SB 375 process, metropolitan planning organizations such as the Kern Council of Governments (KCOG) work with local jurisdictions to develop sustainable community strategies (SCSs). An SCS is designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. While SB 375 does not require local governments to amend their general plans to implement SCSs, it does incentivize them to do so. KCOG's current reduction target for per capita vehicular emissions from passenger vehicles and light-duty trucks is 9% by 2020 and 15% by 2035 compared to 2005 (KCOG 2022).

KCOG most recently adopted the 2022 Regional Transportation Plan, which includes an SCS component in accordance with SB 375.

Advanced Clean Cars Program and Zero Emission Vehicles

In 2012, Executive Order B-16-2012 was issued, which called for the increased penetration of zero-emission vehicles (ZEVs) into California's vehicle fleet to help California achieve a reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. ZEVs include plug-in electric vehicles, such as battery electric vehicles and plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles. Furthering the statewide target for the transportation sector, the executive order also required CARB, the CEC, and the CPUC to establish benchmarks that will (1) allow over 1.5 million ZEVs to be on California roadways by 2025 and (2) provide the state's residents with easy access to ZEV infrastructure.

In 2012, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model years 2015 through 2025. The program combined the control of smog, soot, and GHGs with requirements that about 15% of new cars sold in California in 2025 be plug-in hybrid, battery electric, or fuel cell vehicles.

In 2018, Executive Order B-48-18 was issued, which served to launch an eight-year initiative to accelerate the sale of ZEVs through a mix of rebate programs and infrastructure improvements. The executive order also set a new ZEV target of five million EVs in California by 2030 and provided funding for multiple state agencies, including the CEC (to increase charging infrastructure) and CARB (to provide rebates for the purchase of new ZEVs and incentives for low-income customers).

2022 Scoping Plan for Achieving Carbon Neutrality

Approved by CARB in December 2022, the 2022 Scoping Plan for Achieving Carbon Neutrality (2022 Scoping Plan) assesses progress toward the State's GHG reduction goals and establishes a path to achieve carbon neutrality no later than 2045. The 2022 Scoping Plan focuses on outcomes needed to achieve carbon neutrality by assessing paths for advancing transportation technology, clean energy deployment, maintenance and preservation of natural and working lands, and more. Further, the plan is designed to meet the State's long-term climate objectives. Carbon negative technologies are identified as an essential component in achieving statewide carbon neutrality (CARB 2022).

Local

Metropolitan Bakersfield General Plan

Kern County and the City of Bakersfield jointly prepared and separately adopted a coordinated general plan for the metropolitan area of Bakersfield, which includes the Project area (City of Bakersfield and Kern County 2007). Goals, policies, and implementation measures from the Metropolitan Bakersfield General Plan (MBGP) that are related to energy efficiency and energy consumption (and applicable to the Project) are provided below. The MBGP contains additional policies, goals, and implementation measures that are more general (that is, not project-specific). Accordingly, these measures are not listed below but all policies, goals, and implementation measures in the MBGP are incorporated by reference (as stated in Chapter 2, *Introduction*).

Chapter 5: Conservation/Air Quality

Goals

Goal 3. Reduce the amount of vehicular emissions in the planning area.

Policies

Policy 6. Participate in alternative fuel programs.

Policy 10. Implement the Transportation System Management Program (July 1984) for Metropolitan Bakersfield to improve traffic flow, reduce vehicle trips, and increase street capacity.

Policy 12. Encourage the use of mass transit, carpooling and other transportation options to reduce vehicle miles traveled.

Policy 13. Consider establishing priority parking areas for carpoolers in projects with relatively large numbers of employees to reduce vehicle miles traveled and improve air quality.

Policy 14. Establish park and ride facilities to encourage carpooling and the use of mass transit.

Policy 15. Promote the use of bicycles by providing attractive bicycle paths and requiring provision of storage facilities in commercial and industrial projects.

Policy 18. Encourage walking for short distance trips through the creation of pedestrian friendly sidewalks and street crossings.

Policy 19. Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services to minimize vehicular travel.

Policy 22. Require the provision of secure, convenient bike storage racks at shopping centers, office buildings, and other places of employment in the Bakersfield Metropolitan area.

Policy 23. Encourage the provision of shower and locker facilities by employers, for employees who bicycle or jog to work.

Policy 24 Encourage employers to implement programs for staggered work hours, compressed work weeks, or other measures which relieve vehicle congestion during commute periods and reduce total work trips.

Policy 29. Encourage the use of alternative fuel and low or zero-emission vehicles.

Implementation Measures

Measure 5. Expand the use of alternative fuel and low or zero-emission vehicles in the metropolitan area for public and private use to achieve 10 percent usage.

Measure 6. Create the private and public infrastructure necessary to support alternative fuel vehicles.

4.6.4 Impacts and Mitigation Measures

This section describes the methodology used in conducting the CEQA impact analysis for energy; the thresholds of significance used in assessing impacts to energy; and the assessment of impacts to energy, including relevant mitigation measures.

Methodology

This analysis addresses the Project's potential energy use during construction and operation, including electricity, natural gas, and transportation fuel for vehicle and truck trips. The Airport Drive Warehouse Energy Analysis prepared for the Project (Appendix E) includes detailed data and assumptions as well as model inputs and the resulting outputs.

The analysis below generally follows Appendix F of the CEQA Guidelines, which states that the goal of conserving energy includes decreasing overall per capita energy consumption, decreasing reliance on fossil fuels such as coal, natural gas, and oil, and increasing reliance on renewable energy.

To determine whether implementing the Project would result in the inefficient, wasteful or unnecessary consumption of fuel or energy, this analysis considers the recommendations of

Appendix F of the CEQA Guidelines, which states that environmental impact analyses of energy conservation may include the following:

- The Project's energy requirements and energy use efficiencies by amount and fuel type for each stage of the Project, including construction, operation, maintenance, and removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the Project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the Project on peak- and base-period demands for electricity and other forms of energy.
- The degree to which the Project complies with existing energy standards.
- The effects of the Project on energy resources.
- The Project's projected transportation energy use requirements and overall use of efficient transportation alternatives.

Modeling and Assumptions

CalEEMod

In May 2022, the San Joaquin Valley Air Pollution Control District, in conjunction with the California Air Pollution Control Officers Association and other California air districts, released the latest version of the California Emissions Estimator Model (CalEEMod): Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources as well as energy usage. Accordingly, the latest version of CalEEMod has been used to determine the Project's anticipated transportation and facility energy demands. Appendix E of this EIR provides outputs from the annual model runs.

Emission Factors Model

For on-road vehicles, this energy study utilizes the different fuel types for each vehicle class from the annual EMISSIONS FACTOR model (EMFAC2021) emission inventory to derive the average vehicle fuel economy. This is then used to determine the estimated annual fuel consumption associated with vehicle usage during Project construction and operations. EPA's EMFAC2021 is a mathematical model that was developed to calculate emission rates, fuel consumption, and VMT from motor vehicles that operate on highways, freeways, and local roads in California. The 2024 and 2025 analysis years were utilized to determine the average vehicle fuel economy used throughout the duration of the Project.

Construction

Short-term energy use occurs primarily from the construction phase of a project. Construction of the Project would result in energy use associated with electricity consumption, fuel consumption in off-road construction equipment, and fuel consumption in on-road vendor trucks and worker vehicles.

Construction emissions were estimated under the assumption that construction would commence in January 2024 and last through December 2025. This construction schedule represents a worst-case analysis scenario as construction equipment technology and fuel efficiency improve over time; therefore, energy use totals are conservative and reflect a reasonable and legally sufficient estimate of potential impacts.

Gasoline and diesel fuel would be supplied by existing industrial fuel providers serving the Project area and region. Project construction would represent a “single-event” energy demand and would not require ongoing or permanent commitment of energy resources for this purpose.

Electricity Usage

Construction electricity usage for the Project was determined based on the estimated total construction power cost and the electricity cost for the Project’s utility provider, PG&E. Construction power cost was estimated based on the combined area of the two warehouse buildings, parking lot, and landscaping, the construction duration, and the typical power cost. A typical power cost of \$2.66 per 1,000 square feet of construction per month, taken from the 2024 National Construction Estimator, was used to calculate the Project’s total construction power cost (Pray 2024). PG&E’s general service rate for industrial services as of January 1, 2024, \$0.28 per kWh of electricity, was used (PG&E 2024b).

Off-Road Equipment Fuel Consumption

Off-road equipment fuel consumption was calculated based on construction activity duration estimates, equipment schedules, equipment power ratings, load factors, and fuel consumption rates. Construction equipment information and counts were provided by the Project proponent and supplemented with default CalEEMod equipment lists for the Project’s land use type and development intensity for each phase. All construction equipment assumed activity levels of up to a total of 8 hours per day for each piece of equipment. An aggregate fuel consumption rate of 18.5 horsepower hour per gallon (hp-hr/gal), obtained from CARB 2018 Emissions Factors Tables and cited fuel consumption rate factors presented in Table D-24 of the Carl Moyer Program Guidelines, was used for all equipment (CARB 2018b). The calculations are based on all construction equipment being diesel-powered, consistent with industry standards.

On-Road Vehicle Fuel Consumption

Construction of the Project would require fuel consumption associated with vehicle usage for workers and vendors commuting to and from the site. Project-related construction worker trip counts were based on CalEEMod defaults. Vendor trip counts were based on CalEEMod defaults, adjusted to reflect that vendor trips would likely occur during all phases of construction, not just building construction. Fleet mix for worker vehicles and vendor vehicles were based on CalEEMod defaults. As described above, vehicle fuel efficiencies were estimated using information generated within the EMFAC2021 model.

Operations

Energy consumption in support of, or related to, Project operations would include transportation fuel demands (fuel consumed by passenger car and truck vehicles accessing the Project site), fuel demands from operational equipment, and facilities energy demands (energy consumed by building operations and site maintenance activities).

Transportation Energy Demands

Energy that would be consumed by Project-generated traffic is a function of total VMT and estimated vehicle fuel economies of vehicles accessing the Project site. The VMT per vehicle class can be determined by evaluating the vehicle fleet mix and the total VMT. As with construction worker and vendors trips, operational vehicle fuel efficiencies were estimated using information generated within EMFAC2021.

To account for the possibility of refrigerated uses (cold storage), it is conservatively assumed that all trucks accessing this land use are presumed to also have transport refrigeration units (TRUs). Accordingly, for modeling purposes, 51 trucks (resulting from 102 two-way truck trips) were assumed to be trucks with TRUs. TRUs are also accounted for during on- and off-site travel. The TRU calculations are based on EMFAC2021.

On-Site Cargo-Handling Equipment Fuel Demands

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For the Project, on-site modeled operational equipment includes up to two 175-horsepower (hp), natural gas-powered cargo handling equipment – port tractors operating 4 hours a day for 365 days of the year.

Project operational activity estimates and associated fuel consumption estimates are based on the annual EMFAC2021 offroad emissions for the 2025 operational year and were used to derive the total annual fuel consumption associated with on-site cargo handling equipment.

Emergency Engine Fuel Demands

It is anticipated that the Project would utilize two 300-hp, diesel-powered emergency fire pumps. For analytical purposes, each fire pump was assumed to operate for a maximum of 1 hour per day and 50 hours per year for maintenance and testing purposes.

Microturbine Fuel Demands

It is anticipated that the Project would utilize two natural gas-powered microturbines. For analysis, each microturbine was assumed to operate for a maximum of 1 hour per day and 100 hours per year for maintenance and testing purposes.

Facility Energy Demands

Project building operations activities would result in the consumption of natural gas and electricity, which would be supplied by PG&E. Electricity and natural gas usage associated with the Project was calculated based on CalEEMod defaults.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist—following the Environmental Checklist Form, Appendix G to the Statewide CEQA Guidelines as amended by the California Natural Resources Agency and effective on December 28, 2018 (14 CCR 15000, et seq.)—states that a project would have a significant energy impact if it does the following:

- Results in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
- Conflicts with or obstruct a state or local plan for renewable energy or energy efficiency.

Project Impacts

Impact 4.6-1: The Project would result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

Construction Energy Demand (Short-Term)

Construction of the Project would result in energy use associated with electricity consumption, fuel consumption in off-road construction equipment, and fuel consumption in on-road vendor trucks and worker vehicles. Construction was assumed to begin in January 2024 and conclude in December 2025, however this schedule serves as a conservative estimate only. Should construction occur after these dates, construction emissions would likely decrease due to improvements in technology and more stringent regulatory requirements as older, less-efficient equipment is replaced by newer and cleaner equipment.

Electricity consumption during construction of the Project was estimated to be 470,939 kWh. Off-road equipment use for construction of the Project would result in consumption of an estimated 92,973 gallons of diesel fuel. Worker trips associated with construction of the Project would result in consumption of an estimated 58,216 gallons of gasoline. Diesel fuel consumption from construction vendor trips would total approximately 42,288 gallons.

Gasoline and diesel fuel would be supplied by existing industrial fuel providers serving the Project area and region. Project construction would represent a “single-event” energy demand and would not require ongoing or permanent commitment of energy resources for this purpose.

The Project does not include any unusual design characteristics that would necessitate the use of construction equipment that would be less energy-efficient than at comparable construction sites in the region or state. Construction contractors would be required to comply with applicable CARB regulations regarding retrofitting, repowering, or replacement of diesel off-road construction equipment. These requirements ensure that fleets gradually turn over the oldest and dirtiest equipment to newer, cleaner models and prevent fleets from adding older, dirtier equipment.

Additionally, CARB has adopted the Airborne Toxic Control Measure to limit heavy-duty diesel motor vehicle idling in order to reduce public exposure to diesel particulate matter and other toxic air contaminants. **Mitigation Measure MM 4.3-3** (Section 4.3, *Air Quality*), aimed at reducing air pollutant emissions, would also serve to reduce energy consumption by requiring proper equipment maintenance, setting equipment use and idling limits, and requiring use of equipment meeting Tier 3 engine standards (compliant with CARB engine emissions standards) or utilizing alternative fuel. Compliance with anti-idling and emissions regulations would result in a more efficient use of construction-related energy and the minimization or elimination of wasteful or unnecessary consumption of energy. Idling restrictions and the use of newer engines and equipment would result in less fuel combustion and energy consumption.

Additionally, given the cost of fuel, contractors and owners have a strong financial incentive to avoid wasteful, inefficient, and unnecessary consumption of energy during construction.

Due to the temporary nature of construction, compliance with State and federal requirements, and financial incentives for contractors and owners to use energy-consuming resources in an efficient manner, the construction phase of the Project would not result in wasteful, inefficient, and unnecessary consumption of energy. Impacts would be less than significant.

Operational Energy Demand

Operation of the proposed Project would consume energy as part of building operations and transportation activities. **Table 4.6.1** and **Table 4.6.2** summarize the Project's estimated energy consumption.

Table 4.6.1: Estimated Annual Operational Energy Consumption

Energy Consumption Activity	Annual Quantity
Electricity	
High-Cube Transload Warehouse	7,931,354 kWh
High-Cube Cold Storage Warehouse	4,533,803 kWh
Parking Lot	764,698 kWh
Natural Gas	
High-Cube Transload Warehouse	3,939,270 kBTU
High-Cube Cold Storage Warehouse	692,950 kBTU
Microturbines	1,140,000 kBTU
Cargo Handling Equipment ¹	9,284 gallons
Diesel Fuel	
Emergency Fire Pumps	1,130 gallons
Transportation Fuel: Gasoline and Diesel	
On-Road Mobile Sources	1,045,808 gallons

Source: Airport Drive Warehouse Energy Analysis (Appendix E of this EIR)

Notes:

¹ Quantity of natural gas reported in units of gallons instead of kBTU due to use in mobile cargo handling equipment.

kWh = kilowatt-hour

kBTU = kilo-British Thermal Unit

Table 4.6.2: Project Annual Operational Energy Demand Summary

Land Use	Natural Gas Demand (kBTU/year)	Electricity Demand (kWh/year)
High-Cube Transload Warehouse	3,939,270	7,931,354
High-Cube Cold Storage Warehouse	692,950	4,533,803
Parking Lot	0	764,698
Microturbines	1,140,000	0
Project Energy Demand	5,772,220	13,229,854

Source: Airport Drive Warehouse Energy Analysis (Appendix E of this EIR)

kWh = kilowatt-hour

kBTU = kilo-British Thermal Unit

As noted above in **Table 4.6.2**, operation of the proposed warehouse buildings would consume an estimated 5,772,220 kilo-British Thermal Units (kBTU) per year of natural gas and 13,229,854 kWh/year of electricity. Small amounts of natural gas and diesel fuel would also be consumed through operation of cargo handling equipment and emergency fire pumps. The Project buildings would be designed and constructed in accordance with the County's latest adopted energy efficiency standards, which are based on the California Title 24 Building Energy Efficiency Standards. Title 24 standards include a broad set of energy conservation requirements that apply to the structural, mechanical, electrical, and plumbing systems in a building.

These standards are widely regarded as the most advanced building energy efficiency standards and compliance would ensure that building energy consumption would not be wasteful, inefficient, or unnecessary. Additionally, **Mitigation Measures MM 4.6-1** and **MM 4.6-2**, described below, would require that the Project incorporates energy efficient building design standards and green building measures into overall Project design. These design elements would need to be included in all plans prior to issuance of building and grading permits.

Project-related vehicle trips would consume an estimated 1,045,808 gallons of gasoline and diesel annually and would involve activities and travel routes typical of a warehouse-type project. Over the lifetime of the Project, the fuel efficiency of trucks and employee vehicles is expected to increase due to federal and State regulatory actions, as is the percentage of zero-emission electric vehicles (EVs). **Mitigation Measure MM 4.3-3** (Section 4.3, *Air Quality*), aimed at reducing air pollutant emissions, would also serve to reduce operational energy consumption by limiting idling to 5 minutes and requiring use of equipment meeting CARB engine emissions standards or utilizing alternative fuel. As such, the quantity of petroleum consumed as a result of vehicular trips to and from the Project site during operation would decrease over time. Additionally, the Project would provide parking and EV infrastructure that would further promote fuel efficient vehicles. Thus, transportation fuel consumption would not be wasteful, inefficient, or unnecessary.

Based on the above analysis, energy consumption associated with operation of the Project would not be inefficient, wasteful, or unnecessary. Impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.3-3 (Section 4.3, *Air Quality*)** would be required.

MM 4.6-1 Prior to the issuance of grading, the project proponent shall provide a report and summary of all energy efficient building design standards incorporated into the project design and operations to reduce the level of energy consumption of the project. The following measures shall be included in the project design, as applicable. Explanations for feasibility and implementation shall be included in the report:

- a. Within one year of the first day of project operations, solar photovoltaics mounted on proposed structure's roofs to provide a portion of the future electrical demand and offset emissions from fossil fuel fired power plants;
- b. Incorporate green building measures that contribute to reducing energy use by at least 10 percent and up to 25 percent less than Title 24 requirements;
- c. Provide solar water heating for non-industrial water heating;
- d. If needed, in addition to roof mounted solar, provide ground mounted solar photovoltaics arrays to provide a portion of the estimated electrical demand for the proposed project;
- e. Commercial buildings shall be designed to meet LEED® certification standards;
- f. Roofs on all buildings shall be of a light color to reduce heat generation;
- g. Portions of parking lots (drive aisles) may be paved with concrete versus asphalt, based on structural determinations, to reduce initial solar reflectance;
- h. Within two years of the first day of project operations, up to 20% of employee parking stalls shall be covered. If feasible for electrical demand, the parking stall roofs shall contain solar photovoltaics;
- i. LED lighting fixtures shall be used on all indoor and exterior site lighting;
- j. LED lighting fixtures shall be used on all public streets and site lighting;
- k. Electric forklifts and other material handling vehicles to reduce usage of fossil fuels shall be implemented, based on feasibility of operations;
- l. Consult with Kern County Public Works and Golden Empire Transit (GET) on feasible design circulation features for transit related public street improvements adjacent to the project for implementation of **MM 4.17-3** Transportation Demand Management Program;
- m. Provide bicycle friendly features, such as onsite bike lanes, bike racks, and bike lockers, to reduce vehicle miles traveled and to encourage non-vehicular transportation;

- n. Where feasible design operations to incorporate the usage of high efficiency electric motors for industrial uses.

MM 4.6-2 Prior to the issuance of building permits, the project proponent shall provide evidence that the project is designed to include the green building measures specified as mandatory in the application checklists contained in the current California Green Building Standards. In addition to the number of electric vehicle-capable spaces provided with electric vehicle supply equipment required by the current California Green Building Standards, the project shall provide an additional two percent of electric vehicle-capable spaces with electrical vehicle supply equipment.

Level of Significance after Mitigation

With implementation of **Mitigation Measures MM 4.3-3, MM 4.6-1 and MM 4.6-2**, impacts would be less than significant after mitigation.

Impact 4.6-2: The Project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Kern County does not have an adopted Energy Plan. Kern County does have an Energy Element in the Kern County General Plan but focuses primarily on the County's energy resources and municipal measures such as encouraging the County to seek State and federal energy grants, have discussions with various energy industries, and develop long-term compensation for wildlife habitat unavoidably damaged by energy exploration and development activities to name a few. The Project is within the jurisdictional boundaries of the MBGP, thereby superseding the provisions set forth in the Kern County General Plan. The MBGP includes Air Quality Element policies, goals, and implementation measures that aim to reduce VMT and vehicular emissions and increase the use of alternative fuels, which would indirectly result in reduced fuel consumption and increased energy efficiency.

Construction

As discussed under Impact 4.6-1, above, the Project would result in energy consumption through the combustion of fossil fuels in construction vehicles, worker commute vehicles, and construction equipment, and the use of electricity for temporary buildings, lighting, and other sources. During construction, off-road equipment and on-road vehicles would comply with all applicable federal and State requirements. All off-road equipment would be required to comply with the latest EPA and CARB engine emissions standards, which require efficient engines that would minimize unnecessary fuel consumption. On-road vehicles used during construction of the Project would comply with the EPA and NHTSA's Federal Vehicle Standards, which require higher fuel efficiency over time for new vehicles. Project on-road vehicle fuel consumption would decrease over time as construction staff purchase newer model trucks and turn over their fleet. Moreover, heavy-duty trucks would be required to comply with CARB's 5-minute idling limits, which would reduce fuel consumption. Although these regulations were primarily designed to reduce air quality emissions, they would also result in an increase in energy efficiency during construction.

As a result, construction of the Project would be consistent with the MBGP and would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing energy use or increasing the use of renewable energy.

Operation

Operation of the proposed Project would consume electricity, natural gas, diesel fuel, and gasoline as part of building operations and transportation activities associated with the operation of a high cube transload warehouse storage to facilitate material handling equipment, storage and logistics uses, with up to 20% of the facility used for cold storage. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized handling, storage, and distribution for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, and tools that are typically found in a modern distribution/logistics facility.

California adopted the RPS to increase the amount of renewable energy supplied by utilities within the State. PG&E, the utility supplier for the Project, would be required to meet the future objective of 60% of electricity from renewable energy sources by 2030. In addition, all new structures developed as part of the project would comply with federal, State, and local regulations aimed at reducing energy consumption, including the Building Energy Efficiency Standards (CCR Title 24, Part 6) and the California Green Building Standards (CCR Title 24, Part 11). The incorporation of the Title 24 standards and the mitigation measures in this EIR into the design of the Project would ensure that the Project would not result in the use of energy in a wasteful manner.

As described above for construction, all off-road equipment (for example, yard trucks) and on-road vehicles used for Project operation would comply with all applicable federal and state emission and idling requirements. As a result, operation of the Project would be consistent with the MBGP.

The Project would not conflict with or obstruct the implementation of any state or local plan for renewable or energy efficiency. Project implementation would not conflict with existing energy standards, including standards for energy conservation. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance

Impacts would be less than significant.

4.6.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Cumulative impacts occur when the incremental effects of a project are significant when combined with similar impacts from other past, present, or reasonably foreseeable projects in a similar

geographic area. The geographic scope for cumulative impacts to energy resources is Kern County. Cumulative projects considered as part of this cumulative analysis include the Project, other cumulative projects identified in Chapter 3, *Project Description*, **Table 3-8**, Cumulative Projects of this Draft EIR, and other past, present, and reasonably foreseeable future projects within the incorporated and unincorporated areas of Kern County.

Cumulative impacts would be significant if the incremental effects of an individual project are considerable when combined with the effects of other past, present, or reasonably foreseeable projects in a similar geographic area. As described above, the project-specific impacts associated with construction and operation of the Project would be less than significant with implementation of **Mitigation Measures MM 4.3-3** (Section 4.3, *Air Quality*), **MM 4.6-1**, and **MM 4.6-2**.

As with the Project, cumulative projects would be required to evaluate electricity and natural gas conservation features and compliance with applicable energy efficiency plans and standards including the Title 24 Building Energy Efficiency Standards and CALGreen Code. Each cumulative project would require separate discretionary approval and CEQA assessment, which would address potential energy consumption impacts and identify necessary mitigation measures, where appropriate. Cumulative projects, as with the Project, would also be required to evaluate potential impacts related to conflicts with State and local plans for renewable energy or energy efficiency.

PG&E, the electricity supplier for the Project site and vicinity, would be required by SB 100 to incrementally increase the proportion of renewable electricity generation supplying its in-state retail sales until it reaches 100% carbon-free electricity generation by 2045. Electricity consumed during construction of the Project and cumulative projects would be subject to the renewable electricity generation requirements established by SB 100. The State's transition away from fossil fuel-generated electricity to increased renewable energy would also decrease cumulative project demand for natural gas.

The Project's energy use would be limited to that which is necessary for construction and operation, as required through the implementation of **Mitigation Measures MM 4.3-3** (Section 4.3, *Air Quality*), **MM 4.8-1** and **MM 4.8-2** (*Greenhouse Gas Emissions*) and **MM 4.6-1** and **MM 4.6-2**. As discussed above, the Project would be required to comply with applicable statewide and local policies and standards pertaining to energy efficiency and can reasonably be assumed to pursue greater energy efficiencies to the extent commercially practicable in its operation, in the interest of reducing operating costs. As such, the Project's incremental contribution to the less than significant cumulative impact would not be considerable with respect to energy consumption in the form of electricity and natural gas.

Cumulative projects would be required to comply with CCR Title 13, Sections 2449(d)(3) and 2485, which limit idling from both on- and off-road diesel-powered equipment and are enforced by CARB. Additionally, various federal and State regulations, including the LCFS, Pavley Clean Car Standards, and Federal Vehicle Standards, would serve to reduce the transportation fuel demand of cumulative projects.

Compliance with the aforementioned regulations by the cumulative projects would ensure that they would not result in the inefficient, unnecessary, or wasteful consumption of fuel and their cumulative impact would be less than significant. As discussed in more detail above, the Project would consume vehicle fuel during both construction and operations. And the Project would be required to use fuels which conform to various federal and State regulations, such as the LCFS, Pavley Clean Car Standards, and Federal Vehicle Standards. Further, the Project would consume fuels in an amount necessary for construction and operation and would not consume excessive amounts of fuel beyond what is necessary in the interest of avoiding unnecessary construction or operation costs. Therefore, the Project's incremental contribution to the less than significant cumulative impact would not be considerable with respect to the wasteful or inefficient use of energy.

Considering the information provided above, the Project would not have a cumulatively considerable impact on energy consumption and would not conflict with any renewable energy plans. Cumulative impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.3-3** (Section 4.3, *Air Quality*), **MM 4.6-1**, **MM 4.6-2**, **MM 4.8-1**, and **MM 4.8-2** would be required.

Level of Significance after Mitigation

With implementation of **Mitigation Measures MM 4.3-3**, **MM 4.6-1**, **MM 4.6-2**, **MM 4.8-1** and **MM 4.8-2**, impacts would be less than significant after mitigation.

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Section 4.7

Geology and Soils

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Section 4.7

Geology and Soils

4.7.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment, and regulatory setting regarding geology and soil resources. It also evaluates the impacts on geologic and soil resources resulting from implementing the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the 2022 Preliminary Geotechnical Evaluation, Proposed Industrial Development, Southwest of the Intersection of Boughton Drive and Airport Drive, Kern County, California prepared by LGC Geotechnical, Inc. (LGC) (Appendix F.1), and the 2023 Paleontological Resources Assessment Report prepared by CRM TECH (CRM) (Appendix F.2).

4.7.2 Environmental Setting

Regional Geologic Setting

The Project site is in the southwestern portion of the Great Valley Geomorphic Province of California. The following discussion regarding the Geomorphic Province is from the California Geological Survey Note 36. The Great Valley is an alluvial plain approximately 50 miles wide and 400 miles long in central California. The Great Valley is a trough in which sediments have been deposited almost continuously since the Jurassic (about 160 million years ago). The Sierra Nevada Mountains lie along the eastern side of the trough while the Coastal Ranges lie along the trough's western side. The northern part of the Great Valley is the Sacramento Valley, while the southern part is the San Joaquin Valley. The site is near the southern end of the San Joaquin Valley. Great oil fields have been found in the southernmost San Joaquin Valley and along anticlinal uplifts on its southwestern margin (Appendix F.1).

Paleontological Resources

Paleontological resources (that is, fossils) are the buried remains or traces, or both, of prehistoric organisms (that is, animals, plants, and microbes). Resources can persist for many years if undisturbed or may be destroyed through natural or human disturbances such as construction. Body fossils (for example, bones, teeth, shells, leaves, and wood) and trace fossils (for example, tracks, trails, burrows, and footprints) are found in the geologic units/formations within which they were originally buried. The primary factor determining if an object is a fossil is the age of the organic remain or trace. Typically, fossils must be older than approximately 11,700 years, but materials as young as 5,000 years can be considered. One other consideration is the geologic units in which a project occurs because some localities and the geologic units are considered to have a greater paleontological sensitivity, or potential to contain fossils. Accordingly, paleontological resources

include these localities and the geologic units in which the resources may be located. Ultimately, the paleontological potential is determined based on known fossil localities within a given geologic unit, or the potential for future fossil discoveries, or both, given the age and depositional environment of a particular geologic unit, and are discussed in more detail in this section.

High Potential Areas

Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered have a high potential to contain additional significant paleontological resources. Rocks units classified as having high potential for containing paleontological resources include sedimentary formations and some volcanoclastic formations (for example, ashes or tephra), low-grade metamorphic rocks that contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (for example, middle Holocene and older, fine-grained fluvial sandstones, argillaceous and carbonate-rich paleosols, cross-bedded point bar sandstones, and fine-grained marine sandstones).

Undetermined Potential

Rock units with little available information concerning their paleontological content, geologic age and depositional environment are considered to have undetermined potential. Additional study is necessary to determine if these rock units have a high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist to determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

Low Potential

Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow for a determination that some rock units have a low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus, only preserve fossils in rare circumstances. The presence of fossils is the exception, not the rule (for example, basalt flows or Recent colluvium). Rock units with low potential typically will not require impact mitigation measures to protect fossils.

No Potential

Some rock units have no potential to contain significant paleontological resources, for instance, high-grade metamorphic rocks (for example, gneisses and schists) and plutonic igneous rocks (for example, granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

Existing Paleontological Resources

Records Search

A search of the University of California Museum of Paleontology (UCMP) online paleontological database yielded negative results for fossil localities within the U.S. Geological Survey (USGS) Oildale 7.5 'quadrangle but revealed at least one Pleistocene fossil locality in the general vicinity. According to UCMP records, Locality No. V65247 produced a specimen of Rancholabrean *Equus occidentalis*, fossil horse. The soils within the Project area consist primarily of Pleistocene-age alluvial sediments, which are known to be fossiliferous at depth. Based on this assessment, the presence of fossil material in near-surface soils is unlikely but any fossil specimen discovered at depth in the Project vicinity would be considered scientifically significant.

Literature Review

Based on the literature review conducted by CRM, the surface geology within the Project area has been previously mapped as Qc, described as Pleistocene nonmarine sediments. The surface sediments in and near the Project area have been identified as Qyf, namely Holocene to late Pleistocene-age alluvial fan deposits, which consist of boulder, cobble, gravel, sand, and silt deposits. Qyf is further described as “unconsolidated to slightly consolidated, undissected to slightly dissected, issued from a confined valley or canyon” (Appendix F.2). The surface geology within the Project area is Qoa2, older alluvium of Pleistocene age, which is described as “sand, gravel, silt, and clay underlying terraces removed from modern streams, and in dissected alluvial fans.”

Local Geologic Setting

Locally, the site is situated on a broad, nearly flat alluvial plain that descends to the southwest. The southwest-flowing Kern River is approximately 2 miles southeast of the site. Foothills of the Sierra Nevada Mountains rise approximately 1 to 2 miles northeast of the site, and an approximately 3-mile-wide by 11-mile-long oil field is in these foothills.

Soils and Topography

Based on a review of regional geologic mapping in the vicinity of the site, the Project area is underlain by Quaternary old alluvial deposits. Previous regional mapping identifies the deposits at the site as Pleistocene (Quaternary) Non-Marine (continental) deposits. The deposits were identified as Quaternary old alluvium (Qoa) in the geotechnical evaluation prepared by LGC (Appendix F.1, Preliminary Geotechnical Investigation). Undocumented artificial fills (afu) consisting of berms and stockpiles are located across large portions of the site. The undocumented fill is interpreted to be dry and loose. The Quaternary-aged old alluvium consisted mostly of silty sand and sandy silt with scattered discontinuous beds of sandy clay and clayey sand. The upper 5 feet of the alluvium was generally found to be dry and loose to medium dense, however, at depth it was generally found to be dense to very dense or very stiff to hard and slightly moist to moist in-place.

Groundwater

Historical high groundwater is anticipated to be deeper than 50 feet below the existing ground surface. The California Department of Water Resources Water Data Library indicates several wells existed within approximately 2.5 miles to the northwest and southwest of the site; however, the wells were not frequently monitored. Between approximately 1969 and 2011, groundwater ranged from approximately 130 to 500 feet below the ground surface according to the data. The nearest point of the Kern River is approximately 2 miles southeast of the site, at an elevation approximately 100 feet lower than the lowest point on the site.

Seasonal fluctuations of groundwater elevations should be expected over time. In general, groundwater levels fluctuate with the seasons and local zones of perched groundwater may be present within the near-surface deposits due to local seepage or during rainy seasons. Groundwater conditions below the site may be variable and depend on numerous factors including seasonal rainfall, local irrigation, and groundwater pumping.

Fault Rupture

Ground surface rupture along an earthquake fault may cause damage to aboveground infrastructure and other features. The State has mapped known active faults that may cause surface fault rupture in inhabited areas as part of the Alquist-Priolo Earthquake Fault Zoning Act. Fault rupture typically occurs when movement on a fault breaks through to the ground surface and almost always follows preexisting faults that are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking. Accordingly, ground surface rupture along an earthquake fault may cause damage to aboveground infrastructure and other features and occurs when movement on a fault deep within the earth breaks through to the surface. Active faults are defined as faults with evidence of displacement in the last 11,000 years. The subject site is not within a State of California Fault Rupture Hazard Zone. The major faults of the San Andreas Fault and Garlock Fault are approximately 40 miles southwest and 40 miles southeast of the site, respectively. The nearest Holocene-active faults identified by California Geological Survey are the Kern Front Fault approximately 1 mile northeast of the site and the Premier Fault approximately 3 miles to the northwest of the site. No Holocene-active faults are known to cross the site, therefore, the possibility of damage due to ground rupture is considered low.

Ground Shaking

Faults within the Project site vicinity have the potential to cause ground shaking at the Project site; the magnitude of ground shaking experienced on site is dependent on the distance to causative faults and the earthquake magnitude (or measure of the amount of energy released during an earthquake event). Strong ground shaking from an earthquake can result in damage associated with landslides, ground lurching, structural damage, and liquefaction. The Southern California region is characterized by, and has a history of, fault stress and associated seismic activity. Earthquakes are classified by their magnitude, a measure of energy released during an event. During a seismic event, the Project site may be subjected to high levels of ground shaking due to active faults in the area. The largest fault in the area is the San Andreas Fault, which is considered active. Strong ground

shaking can be expected at the site during moderate to severe earthquakes in the general region. However, this phenomenon is common to most areas in Southern California.

Landslides

The topography of the site and surrounding area is generally flat. Research and field observations do not indicate the presence of landslides on the site or in the immediate vicinity. Regional geologic maps of the area do not indicate the presence of known or suspected landslides in the vicinity of the site. Therefore, the possibility of landslides within the Project area as a result of Project implementation is considered nil.

Liquefaction

Liquefaction is the phenomenon in which saturated granular sediments temporarily lose their shear strength during periods of earthquake-induced strong ground shaking. Liquefaction can produce excessive settlement, ground rupture, lateral spreading, or failure of shallow bearing foundations. The following major factors must be analyzed to determine the liquefaction susceptibility of a region: (1) the density and textural characteristics of the alluvial sediments; (2) the intensity and duration of ground shaking; and (3) the depth to groundwater. Zones of Required Evaluation referred to as “Seismic Hazard Zones” in California Code of Regulations Article 10, Section 3722, are areas shown on Seismic Hazard Zone maps where site evaluations are required to determine the need for mitigation of potential liquefaction and/or earthquake-induced landslide ground displacements. There are no mapped areas with Seismic Hazard Zones for liquefaction or landslide displacements within the Project area.

Due to the depth of groundwater greater than 50 feet, and the generally dense/hard nature of underlying native soils, the potential for liquefaction and liquefaction-induced settlement within the Project area as a result of Project implementation is considered very low.

Lateral Spreading

Lateral spreading is a potential hazard commonly associated with liquefaction where extensional ground cracking and settlement occur following lateral migration of subsurface liquefiable material. These phenomena typically occur adjacent to free faces, such as slopes and creek channels.

Due to the very low potential for liquefaction, the potential for lateral spreading within the Project area as a result of Project implementation is considered very low.

Soil Erosion

Soil erosion occurs when surface materials are worn away from the earth’s surface due to land disturbance and/or natural factors such as wind and precipitation. Characteristics such as texture and content, surface roughness, vegetation cover, and slope grade and length determine the potential for soil erosion. Wind erosion typically occurs when fine-grained, noncohesive soils are exposed to high-velocity winds, while water erosion tends to occur when loose soils on moderate and steep slopes are exposed to high-intensity storm events.

As previously discussed, the Project site is underlain by Quaternary old alluvial deposits (Qoa). Previous regional mapping identifies the deposits at the site as Pleistocene (Quaternary) Non-Marine (continental) deposits. The Quaternary-aged old alluvium was found to consist mostly of silty sand and sandy silt with scattered discontinuous beds of sandy clay and clayey sand.

The Project site mostly consists of sands, and the on-site soils are generally well drained. The Project site is relatively flat and vegetation primarily consists of a moderate growth of weeds. Typically, long slope length and high slope steepness contribute to higher erosion rates. Thus, since the site is relatively flat, erosion potential related to slope length and slope steepness within the Project area as a result of Project implementation is low.

Subsidence

Subsidence is the settlement of the ground surface over large areas (typically on the order of square miles) typically due to the lowering of the groundwater table. Mitigation against such a large-scale groundwater drawdown cannot be performed on a site-specific level, but instead “requires regional cooperation among numerous agencies” and, therefore, is not a site-specific geotechnical consideration. The soils at the Project site do not generally indicate the presence of soils susceptible to collapse or excessive settlement. Based on the local site geologic conditions, the potential for subsidence in the site development area as a result of Project implementation is considered low.

Soil Collapse

Collapsible soils consist of loose, dry, low-density materials that collapse, compact, and change in settlement under the addition of water or excessive loading, often resulting in severe damage to structures. The settlement of soils is characterized by sinking or descending soils that occurs as the result of a heavy load placed on underlying sediments and may be triggered by seismic events. Seismically induced settlement is dependent on the relative density of the subsurface soils. Based on the local site geologic conditions, the potential for soil collapse in the site development area as a result of Project implementation is considered low.

Expansive Soils

Soils that expand and contract in volume (“shrink–swell” pattern) are considered expansive and may cause damage to aboveground infrastructure as a result of density changes that shift overlying materials. Fine-grain clay sediments are likely to exhibit shrink–swell patterns in response to changing moisture levels. Based on laboratory testing results, site soils are anticipated to have a “Very Low” expansion potential. The final expansion potential of site soils should be determined when grading is complete.

4.7.3 Regulatory Setting

Geologic and soil resources and geotechnical hazards are governed primarily by local jurisdictions. The conservation and seismic safety elements of City and County general plans contain policies to protect geologic features and avoid hazards.

California Environmental Quality Act (CEQA) is the major environmental statute that guides the design and construction of projects on nonfederal lands in California. This statute sets forth a specific process for environmental impact analysis and public review. In addition, the Project proponent must comply with other applicable State and local statutes, regulations, and policies. Relevant and potentially relevant statutes, regulations, and policies are discussed below.

Federal

Clean Water Act (Erosion Control)

The Clean Water Act (CWA) (33 United States Code [USC] Section 1251 et seq.) was enacted to restore and maintain the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality by regulating point source and certain nonpoint-source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). Projects that disturb 1 acre or more of land are required to obtain NPDES coverage under the NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, State Water Resources Control Board Order No. 2022-0057-DWQ. The General Permit requires developing and implementing a stormwater pollution prevention plan (SWPPP) that includes best management practices (BMPs) to protect stormwater runoff.

The CWA's requirements and associated SWPPP requirements are described in Section 4.10, *Hydrology and Water Quality*.

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act was enacted in 1997 to “reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards and reduction program.” To accomplish this, the Act established the National Earthquake Hazards Reduction Program (NEHRP). This program was significantly amended in November 1990 by NEHRP, which refined the description of agency responsibilities, program goals, and objectives.

NEHRP's mission includes improved understanding, characterization, and prediction of hazards and vulnerabilities; improvement of building codes and land use practices; risk reduction through post-earthquake investigations and education; development and improvement of design and construction techniques; improvement of mitigation capacity; and accelerated application of research results. NEHRP designated the Federal Emergency Management Agency (FEMA) as the program's lead agency and assigned several planning, coordinating, and reporting responsibilities. Programs under NEHRP inform and guide planning and building code requirements including emergency evacuation responsibilities and seismic code standards such as those to which the Project would be required to adhere.

Paleontological Resources

A variety of federal statutes specifically address paleontological resources. They are applicable to a project if the project includes federally owned or managed lands or involves a federal agency license, permit, approval, or funding. The first statute is the Antiquities Act of 1906 (54 USC 320301-320303 and 18 USC 1866(b)), which calls for the protection of historic landmarks, historic and prehistoric structures, as well as other objects of historic or scientific interest on federally administered lands, the latter of which would include fossils. The Antiquities Act both establishes a permit system for the disturbance of any object of antiquity on federal land and sets criminal sanctions for violation of these requirements. The Antiquities Act was extended to specifically apply to paleontological resources by the Federal-Aid Highways Act of 1958. More recent federal statutes that address the preservation of paleontological resources include the National Environmental Policy Act, which requires the consideration of important natural aspects of national heritage when assessing the environmental impacts of a project (Public Law [PL] 91-190, 31 Stat. 852, 42 USC 4321–4327). The Federal Land Policy Management Act of 1976 (PL 94-579; 90 Stat. 2743, USC 1701–1782) requires that public lands be managed in a manner that will protect the quality of their scientific values, while Title 40 Code of Federal Regulations Section 1508.2 identifies paleontological resources as a subset of scientific resources. The Paleontological Resources Preservation Act (Title VI, Subtitle D, of the Omnibus Land Management Act of 2009) is the primary piece of federal legislation.

Paleontological Resources Preservation Act

The Paleontological Resources Preservation Act offers provisions for paleontological resources identified on federal, Native American, or state lands and guidance for their management and protection, and promotes public awareness and scientific education regarding vertebrate fossils. The law requires federal agencies to develop plans for inventory, collection, and monitoring of paleontological resources and establishes stronger criminal and civil penalties for the removal of scientifically significant fossils on federal lands.

State

Alquist-Priolo Earthquake Fault Zoning Act of 1972

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 regulates development and construction of buildings intended for human occupancy to avoid the hazard of surface fault rupture. In accordance with this law, the California Geological Survey maps active faults and designates Earthquake Fault Zones along mapped faults. The Alquist-Priolo Earthquake Fault Zoning Act categorizes faults into active, potentially active, and inactive. Historic- and Holocene-age faults are considered active, Late Quaternary- and Quaternary-age faults are considered potentially active, and pre-Quaternary-age faults are considered inactive. These classifications are qualified by the conditions that a fault must be shown to be “sufficiently active” and “well defined” by detailed site-specific geologic explorations to determine whether building setbacks should be established. Any project that involves the construction of buildings or structures for human occupancy is subject to

review under the Alquist-Priolo Earthquake Fault Zoning Act, and any structures for human occupancy must be at least 50 feet from any active fault.

Seismic Hazards Mapping Act of 1990

In accordance with Public Resources Code, Chapter 7.8, Division 2, the California Geological Survey delineates Seismic Hazard Zones through the Seismic Hazards Zonation Program. The purpose of the Seismic Hazards Mapping Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards, such as those associated with strong ground shaking, liquefaction, landslides, other ground failures, or other hazards caused by earthquakes. Cities, counties, and State agencies are directed to use Seismic Hazard Zone Maps developed by the California Geological Survey in their land use planning and permitting processes. In accordance with the Seismic Hazards Mapping Act, site-specific geotechnical investigations must be performed before permitting most urban development Projects within Seismic Hazard Zones.

California Integrated Seismic Network

The California Integrated Seismic Network (CISN) was formed in November 2000 to operate a reliable, modern, statewide system for earthquake monitoring, research, archiving, and distribution of information to benefit public safety, emergency response, and loss mitigation. The CISN seeks to mitigate the impact of future earthquakes by collecting, processing, and disseminating critical earthquake information in a timely manner.

Six organizations collaborate in the CISN to monitor earthquakes and collect data to support improvements to earthquake resilience. Core members of the CISN are the California Geological Survey, California Institute of Technology Seismological Laboratory, University of California–Berkeley Seismological Laboratory, USGS Menlo Park, USGS Pasadena, and California Governor’s Office of Emergency Services. The CISN has three management centers with different responsibilities:

- Southern California Earthquake Management Center: California Institute of Technology and USGS Pasadena
- Northern California Earthquake Management Center: University of California– Berkeley and USGS Menlo Park
- Center for Engineering Strong Motion Data

The Northern and Southern California Earthquake Management Centers are twin earthquake processing centers. The engineering earthquake management center is primarily responsible for producing engineering data products.

California Building Code

The California Building Code (CBC) (2022) is codified in Title 24 of the California Code of Regulations, Part 2, and contains general building design and construction requirements relating to fire and life safety, structural safety, and access compliance. CBC provisions provide minimum standards to safeguard life or limb, health, property, and public welfare by regulating and controlling the design; construction; quality of materials; use and occupancy; location; and maintenance of all buildings, structures, and certain equipment. Every three years the national model codes and standards are published and, by law, California is required to incorporate specific model codes and standards into Title 24. The 2022 edition of the CBC was published by the California Building Standards Commission in 2022 and took effect starting January 1, 2023.

The 2022 CBC contains California amendments based on the American Society of Civil Engineers (ASCE) Minimum Design Standard ASCE/SEI 7-16, Minimum Design Loads for Buildings and Other Structures, provides requirements for general structural design and includes means for determining earthquake loads (which is defined as the overall force to which a structure is subjected to support a weight or mass, or in resisting externally applied forces. Excess load or overloading may cause structural failure) as well as other loads (such as wind loads) for inclusion into building codes. Seismic design provisions of the building code generally prescribe minimum lateral forces applied statically to the structure, combined with the gravity forces of the dead and live loads on the structure that the structure must be designed to withstand. The prescribed lateral forces are generally smaller than the actual peak forces associated with a major earthquake. Consequently, structures should be able to: (1) resist minor earthquakes without damage, (2) resist moderate earthquakes without structural damage but with some nonstructural damage, and (3) resist major earthquakes without collapse, but with some structural as well as nonstructural damage. Conformance to the current building code recommendations does not constitute any guarantee that significant structural damage would not occur in the event of a maximum magnitude earthquake. However, it is reasonable to expect that a structure designed in accordance with the seismic requirements of the CBC should not collapse in a major earthquake. The earthquake design requirements consider the occupancy category of the structure, site class, soil classifications, and various seismic coefficients, all of which are used to determine a seismic design category (SDC) for a project. The SDC is a classification system that combines the occupancy categories with the level of expected ground motions at the site; SDC ranges from A (very small seismic vulnerability) to E/F (very high seismic vulnerability and near a major fault). Seismic design specifications are determined according to the SDC in accordance with CBC Chapter 16.

In accordance with CBC Chapter 18, Soils and Foundations, geotechnical investigations shall be conducted in accordance with Section 1803.2 and reported in accordance with Section 1803.6. Where required by the building official or where geotechnical investigations involve in situ testing, laboratory testing, or engineering calculations, such investigations shall be conducted by a registered design professional. For Seismic Design Categories D, E, and F, Chapter 18 requires analysis of slope instability, liquefaction, and surface rupture attributable to faulting or lateral spreading, plus an evaluation of lateral pressures on basement and retaining walls, liquefaction and soil strength loss, and lateral movement or reduction in foundation soil-bearing capacity. It also addresses measures to be considered in structural design, which may include stabilizing the ground,

selecting appropriate foundation types and depths, selecting appropriate structural systems to accommodate anticipated displacements, or any combination of these measures. The potential for liquefaction and soil strength loss must be evaluated for site-specific peak ground acceleration magnitudes and source characteristics consistent with the design earthquake ground motions.

Chapter 18 describes the analysis of expansive soils and the determination of the depth to groundwater table. Expansive soils are defined in the CBC as follows:

1803.5.3 Expansive Soil. *In areas likely to have expansive soil, the building official shall require soil tests to determine where such soils do exist. Soils meeting all four of the following provisions shall be considered expansive, except that tests to show compliance with Items 1, 2 and 3 shall not be required if the test prescribed in Item 4 is conducted:*

- 1. Plasticity index (PI) of 15 or greater, determined in accordance with ASTM D 4318.*
- 2. More than 10 percent of the soil particles pass a No. 200 sieve (75 micrometers), determined in accordance with ASTM D 422.*
- 3. More than 10 percent of the soil particles are less than 5 micrometers in size, determined in accordance with ASTM D 422.*
- 4. Expansion index greater than 20, determined in accordance with ASTM D 4829.*

Porter-Cologne Water Quality Control Act (Erosion Control)

The Porter-Cologne Water Quality Control Act, in cooperation with the CWA, established the California State Water Resources Control Board (SWRCB). The SWRCB and the nine regional water quality control boards (RWQCBs) protect California's surface water and groundwater supplies. Section 13000 of the act directs each RWQCB to develop Water Quality Control Plans for all areas in its region, to designate the beneficial uses of California's rivers and groundwater basins; these plans are the basis for each board's regulatory program. The Basin Plan provides direction on the beneficial uses of state waters in Region 6, describes the water quality that must be maintained to support such uses, and includes programs, Projects, and other actions necessary to achieve the standards established in the Basin Plan. The Lahontan RWQCB implements the Basin Plan by issuing and enforcing waste discharge requirements to individuals, communities, or businesses whose waste discharges may affect water quality. These requirements are State Waste Discharge Requirements for discharge to land or federally delegated NPDES permits for discharges to surface water. Responsibility for implementing CWA Sections 401–402 and Section 303(d) is outlined in the Porter-Cologne Water Quality Control Act.

State Regional Water Quality Control Board, Stormwater General Construction Permit

The five-member SWRCB allocates water rights, adjudicates water rights disputes, develops Statewide water protection plans, establishes water quality standards, and guides the nine RWQCBs in the major watersheds of the State. The joint authority of water allocation and water quality protection enables the SWRCB to provide comprehensive protection for California's waters. In 1999, the State adopted the NPDES General Permit for Stormwater Discharges Associated with Construction Activities (Construction Activities General Permit) (SWRCB Order No. 2012-0006-DWQ, NPDES No. CAS000002). The General Construction Permit generally requires that construction sites with 1 acre or greater of soil disturbance, or less than 1 acre but part of a greater common plan of development, apply for coverage for discharges under the General Construction Permit by submitting a Notice of Intent for coverage, developing a SWPPP, and implementing BMPs to address construction site pollutants if the Project is deemed to discharge into a water of the United States. However, as the Project site is in a terminal drainage area of Kern County (for example, does not drain to waters of the United States), NPDES coverage is not expected to be required as described in detail in Section 4.10, *Hydrology and Water Quality*.

The SWPPP should contain a site map(s) that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the Project. The SWPPP must list the BMP the discharger will use to protect stormwater runoff and the placement of those BMPs. The SWPPP must contain a visual monitoring program, a chemical monitoring program for "non-visible" pollutants to be implemented if there is a failure of BMPs, and a sediment monitoring plan if the site discharges directly to a water body listed on the 303(d) list for sediment. Section A of the Construction General Permit describes the elements that must be contained in a SWPPP. Enrollment under the General Construction Permit is through the Stormwater Multiple Application and Report Tracking System. The SWRCB is responsible for implementing the CWA and issues NPDES permits to cities and counties through the individual regional boards.

Local

Metropolitan Bakersfield General Plan

Bakersfield is the largest incorporated area in Kern County. Bakersfield is the county seat and the focus of much of the business activity in the County. Accordingly, Kern County and the City of Bakersfield have separately adopted a coordinated general plan for the metropolitan area (Metropolitan Bakersfield General Plan) that provides information on planned land uses, policies, and implementation programs for the unincorporated portions of the metropolitan plan area. The 409 square miles included in the plan are the City of Bakersfield's adopted Sphere of Influence. The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for geology and soils applicable to the Project are provided below.

Chapter II. Land Use Element

Policies

Policy 104. As part of the environmental review procedure, an evaluation of the significance of paleontological, archaeological, and historical resources and the impact of proposed development on those resources shall be conducted and appropriate mitigation and monitoring included for development Projects.

Implementation

Implementation 7. Environmental Review. Local guidelines for Project processing shall reflect CEQA Guidelines which state that the environmental effects of a Project must be taken into account as part of Project consideration.

Chapter V. Conservation Element/Soils and Agriculture

Policies

Policy 6. Continue implementing land grading ordinances that reduce soil erosion/siltation commonly associated with land development.

Policy 7. Land use patterns, grading, and landscaping practices shall be designed to prevent soil erosion while retaining natural watercourses when possible.

Policy 12. Prohibit premature removal of ground cover in advance of development and require measures to prevent soil erosion during and immediately after construction.

Policy 13. Minimize the alteration of natural drainage and require development plans to include necessary construction to stabilize runoff and silt deposition through enforcement of grading and flood protection ordinances.

Implementation

Implementation 4. Periodically review and update grading ordinances that take into account the potential of soil erosion.

Chapter VIII. Safety Element

Safety/Seismic

Goals

Goal 4. Prevent loss of life from the failure of critical facilities in an earthquake and ensure the continued functioning of essential facilities following a disaster.

Policies

Policy 10. Prohibit development designed for human occupancy within 50 feet of a known active fault and prohibit any building from being placed astride an active fault.

Policy 11. Require site-specific studies to locate and characterize specific fault traces within an Alquist-Priolo Earthquake Fault Zone for all construction designed for human occupancy.

Policy 13. Determine the liquefaction potential at sites in areas of high groundwater prior to development and determine specific mitigation to be incorporated into the foundation design, as necessary to prevent or reduce damage from liquefaction in an earthquake.

Policy 15. Compile information on areas of potential hazards and field information developed as part of CEQA investigations and geo-logic reports and keep geologic reviews and policy development current and accessible for use in report preparation.

Implementation

Implementation 2. Require detailed site studies for ground shaking characteristics, liquefaction potential, dam failure inundation and flooding potential, and fault rupture potential, as background to the design process for critical facilities under city and county discretionary approval.

Implementation 3. Require structures that are within the plan area and are subject to Building Department review to adhere to the most current seismic standards adopted as part of the Uniform Building Code.

Implementation 13. Detailed geologic investigations shall be conducted, in conformance with guidelines of the California Division of Mines and Geology, for all construction designed for human occupancy in an Alquist-Priolo Earthquake Fault Study Zone.

Implementation 17. Require liquefaction investigations in all areas of high groundwater potential and appropriate foundation designs to mitigate potential damage to buildings on sites with liquefaction potential.

Implementation 21. Compile maps showing the location of all geologic hazards, including: active faults, Alquist-Priolo Earthquake Fault Zones, 100-year flood hazard, extent of Projected dam failure inundation and time arcs, depth of inundation, land subsidence, slope failure and earthquake-induced landslides, high groundwater and liquefaction potential.

Implementation 22. Compile information on areas of potential hazard. Field information developed as part of CEQA investigations and geologic reports by the city/county geologists should be kept current and accessible for use in report preparation, geologic reviews and policy development.

Kern County Zoning Ordinance

Construction and operation of the Project are subject to regulations contained within the Kern County Zoning Ordinance, which includes Special Development Standards (Chapter 19.80) for the avoidance of geologic hazards and/or the protection of unique geologic features, as well as for the preservation of paleontological resources.

Kern County Code of Building Regulations – (Title 17 of the Ordinance Code of Kern County)

Chapter 17.08 Building Code

All construction in the county is required to conform to the Kern County Building Code (Chapter 17.08, Building Code, of the Kern County Code of Regulations). Kern County has adopted the California Building Code, 2022 Edition, with some modifications and amendments. The entire County is in Seismic Zone 4, a designation previously used in the Uniform Building Code to denote the areas of highest risk to earthquake ground motion. California has established an Unreinforced Masonry program that details seismic safety requirements for Zone 4. Seismic provisions associated with Seismic Zone 4 have been adopted.

Chapter 17.28 of Kern County Grading Code

The Kern County Grading Code sets forth rules and regulations to control excavation, grading and earthwork construction, including fills and embankments; establishes the administrative procedure for issuance of permits; and provides for approval of plans and inspection of grading construction. All Kern County Grading Code requirements would be applied during Project implementation. All required grading permit(s) would be obtained prior to the commencement of construction activities. Sections of the Grading Code that are particularly relevant to geology and soils are provided below.

Section 17.28.140 Erosion Control

- A. Slopes. The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.
- B. Other Devices. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.
- C. Temporary Devices. Temporary drainage and erosion control shall be provided as needed at the end of each workday during grading operations, such that existing drainage channels would not be blocked. Dust control shall be applied to all graded areas and materials and shall consist of applying water or another approved dust palliative for the alleviation or prevention of dust nuisance. Deposition of rocks, earth materials, or debris onto adjacent property, public roads, or drainage channels shall not be allowed.

Section 17.28.170 Grading Inspection

- 1. General. All grading operations for which a permit is required shall be subject to inspection by the building official. Professional inspection of grading operations and testing shall be provided by the civil engineer, soils engineer, and the engineering geologist retained to provide such services in accordance with Subsection 17.28.170(E) for engineered grading and as required by the building official for regular grading.

2. Civil Engineer. The civil engineer shall provide professional inspection within such engineer's area of technical specialty, which shall consist of observation and review as to the establishment of line, grade, and surface drainage of the development area. If revised plans are required during the course of the work, they shall be prepared by the civil engineer.
3. Soils Engineer. The soils engineer shall provide professional inspection within such engineer's area of technical specialty, which shall include observation during grading and testing for required compaction. The soils engineer shall provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify that such work is being performed in accordance with the conditions of the approved plan and the appropriate requirements of this chapter. Revised recommendations relating to conditions differing from the approved soils engineering and engineering geology reports shall be submitted to the permittee, the building official and the civil engineer.
4. Engineering Geologist. The engineering geologist shall provide professional inspection within such engineer's area of technical specialty, which shall include professional inspection of the bedrock excavation to determine if conditions encountered are in conformance with the approved report. Revised recommendations relating to conditions differing from the approved engineering geology report shall be submitted to the soils engineer.
5. Permittee. The permittee shall be responsible for the work to be performed in accordance with the approved plans and specifications and in conformance with the provisions of this Code, and the permittee shall engage consultants, if required, to provide professional inspections on a timely basis. The permittee shall act as a coordinator between the consultants, the contractor and the building official. In the event of changed conditions, the permittee shall be responsible for informing the building official of such change and shall provide revised plans for approval.
6. Building Official. The building official may inspect the Project at the various stages of the work requiring approval to determine that adequate control is being exercised by the professional consultants.
7. Notification of Noncompliance. If, in the course of fulfilling their responsibility under this chapter, the civil engineer, the soils engineer, or the engineering geologist finds that the work is not being done in conformance with this chapter or the approved grading plans, the discrepancies shall be reported immediately in writing to the permittee and to the building official. Recommendations for corrective measures, if necessary, shall also be submitted.
8. Transfer of Responsibility. If the civil engineer, the soils engineer, or the engineering geologist of record is changed during the course of the work, the work shall be stopped until:
 1. The civil engineer, soils engineer, or engineering geologist has notified the building official in writing that they will no longer be responsible for the work and that a qualified replacement has been found who will assume responsibility.
 2. The replacement civil engineer, soils engineer, or engineering geologist notifies the building official in writing that they have agreed to accept responsibility for the work.

Kern County Water Control Plan

Each of the nine RWQCBs adopts a Water Quality Control Plan that recognizes and reflects regional differences in existing water quality, the beneficial uses of the region's groundwater and surface waters, and local water quality conditions and problems. Water quality problems in the regions are listed in these plans, along with the causes, if they are known. Each RWQCB is to set water quality objectives that would ensure the reasonable protection of beneficial uses and the prevention of nuisance, with the understanding that water quality can be changed somewhat without unreasonably affecting beneficial uses. Kern County is within the Central Valley Regional Water Quality Control Board.

The Kern County Engineering and Survey Services Department requires the completion of an NPDES applicability form for projects with construction disturbing 1 acre or more within Kern County. This form requires the applicant to provide background information on construction activities and identify if stormwater runoff could potentially discharge into waters of the United States, be contained on site, or discharge indirectly off site to a river, lake, stream, or off-site drainage facility. Should stormwater runoff be contained on-site and not discharged into any waters, no special actions are required. Should stormwater runoff discharge into waters of the United States, compliance with the State Water Board Construction General Permit is required, which requires the preparation of a SWPPP. Should stormwater runoff not drain to waters of the United States (for example, drains to a terminal drainage facility), the applicant would be required to develop a SWPPP and BMPs. Projects disturbing at least 1 acre of soil in Kern County are required to apply for a County NPDES Stormwater Program Permit. Prior to issuance of the permit, Kern County Engineering, Surveying and Permit Services must verify the applicant's stormwater plans. Applicants must apply for the permit under one of the following four conditions:

- All stormwater is retained on site and no stormwater runoff, sediment, or pollutants from onsite construction activity can discharge directly or indirectly offsite or to a river, lake, stream, municipal storm drain, or offsite drainage facilities.
- All stormwater runoff is not retained on site, but does not discharge to a water of the United States (that is, drains to a terminal drainage facility). Therefore, a SWPPP has been developed and BMPs must be implemented.
- All stormwater runoff is not retained on site, and the discharge is to a water of the United States. Therefore, a Notice of Intent must be filed with the State Regional Water Resources Control Board, Central Valley Region, prior to issuance of the building permit. Also, a SWPPP has been developed and BMPs must be implemented.
- Construction activity is between 1 and 5 acres and an Erosivity Waiver was granted by the SWRCB. BMPs must be implemented.

4.7.4 Impacts and Mitigation Measures

This section describes the methodology used in conducting the CEQA impact analysis for geology and soils; the thresholds of significance used in assessing impacts on geology and soils; and the assessment of impacts on geology and soils, including relevant mitigation measures.

Methodology

The analysis in this section is largely based on the Preliminary Geotechnical Evaluation, Proposed Industrial Development, Southwest of the Intersection of Boughton Drive and Airport Drive, Kern County, California (Appendix F.1), and the Paleontological Resources Assessment Report (Appendix F.2) prepared for the Project.

The loss of any identifiable fossil that could yield information important to prehistory, or that embodies the distinctive characteristics of a type of organism, environment, time period, or geographic region, would be a significant environmental impact. Direct impacts on paleontological resources primarily concern the potential destruction of nonrenewable paleontological resources and the loss of information associated with these resources. This includes the unauthorized collection of fossil remains. If potentially fossiliferous bedrock or surficial sediments are disturbed, the disturbance could destroy paleontological resources and subsequent loss of information (significant impact). At the project-specific level, direct impacts can be mitigated to a less than significant level through implementing paleontological mitigation.

The CEQA threshold of significance for a significant impact on paleontological resources is reached when a project is determined to “directly or indirectly destroy a significant paleontological resource or unique geologic feature.” In general, for projects that are underlain by paleontologically sensitive geologic units, the greater the amount of ground disturbance, the higher the potential for significant impacts to paleontological resources. For projects that are directly underlain by geologic units with no paleontological sensitivity, there is no potential for impacts on paleontological resources unless sensitive geologic units that underlie the nonsensitive unit are also affected.

This section describes the potential geology and soils impacts associated with Project development. This analysis first established baseline conditions for the affected environment relevant to geology and soils, as presented in Section 4.7.2.

Thresholds of Significance

The County CEQA Implementation Document and Environmental Checklist state that a Project would have a significant impact on geology and soils if it would:

- Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the state geologist for the area or based on other substantial evidence of a known fault

- Strong seismic ground shaking
- Seismic-related ground failure, including liquefaction
- Landslides
- Result in substantial soil erosion or the loss of topsoil
- Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property
- Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

Project Impacts

Impact 4.7-1: The Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo earthquake fault zoning map issued by the state geologist for the area or based on other substantial evidence of a known fault.

Primary ground rupture is ground deformation that occurs along the surface trace of the causative fault during an earthquake. The Project would introduce structures and people to the Project site (construction workers and full-time operational employees) and could thus expose people and structures to seismic risks.

The Project site is within the highly seismic southern California region that is influenced by multiple faults, but it is not located within or near a State of California Alquist-Priolo Earthquake Fault Zone. The two largest faults in the region are the San Andreas Fault Zone (approximately 40 miles to the southwest) and the Garlock Fault (40 miles to the southeast). The nearest Holocene active faults identified by CGS are the Kern Front Fault approximately 1 mile northeast of the site and the Premier Fault approximately 3 miles to the northwest of the site. Due to the distance from the nearest active fault to the Project site, the potential for surface fault rupture is considered low.

Development would include two single-story logistics warehouses for a facility of approximately 923,130 square feet and associated improvements. The proposed facility would operate 24 hours a day, 365 days a year. The overall Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage, and logistics uses, up to 20% of the facility would be used for cold storage. The warehouses would serve trucks exclusively and

would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate any specialized storage, handling and distribution equipment for the various goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, tools, etc. that are typically found in a modern distribution/logistics facility and consistent with M-1 PD-H Zone District. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. building code, fire code, plumbing code, etc.). Outdoor storage is not proposed as part of this Project. Due to operations and product-handling occurring within the warehouse or on entirely paved surfaces that would have undergone sufficient geological surveying prior to buildout, Project-level impacts are not expected to increase impacts to a significant level and additional mitigation measures specific to product-type are not warranted.

Construction of the Project would be subject to all applicable ordinances of the Kern County Building Code (Chapter 17.08). Kern County has adopted the CBC 2016 Edition (California Code of Regulations Title 24). Adherence to all applicable regulations would ensure that Project structures comply with minimum standards related to structural strength and general stability. Based on the absence of any known active faults that cross or come anywhere near the Project site, and the Project's compliance with applicable ordinances of the Kern County Building Code, impacts related to fault rupture would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

Impacts would be less than significant.

Impact 4.7-2: The Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking.

As stated previously, the Project is in a highly seismic region that could experience one or more substantive seismic events. The region is influenced by several fault systems, most notably the San Andreas and Garlock Fault systems, capable of generating strong ground motions that could affect the Project site and surrounding areas. Depending on the magnitude, distance to the source, and duration of shaking, damage to the buildings and injury to workers or visitors could result. Although the Project site is within a highly seismic region, it is unlikely the Project would directly or indirectly cause substantial adverse effects involving strong seismic ground shaking.

As stated previously, the Project is not on nor near a State of California Alquist-Priolo Earthquake Fault Zone. The nearest active faults, the San Andreas and Garlock Faults, are 40 miles southwest and 40 miles southeast away, respectively.

To mitigate any potential impacts, such as the risk of loss, injury, or death stemming from the Project, **Mitigation Measures 4.7-1** through **4.7-7** would be implemented along with Project compliance with applicable ordinances of the Kern County Building Code and the CBC.

Mitigation Measure MM 4.7-1 requires the Project proponent to limit grading to the minimum area necessary for construction. Prior to the initiation of construction, the Project proponent shall retain a California-registered professional engineer to approve the final grading of earthwork and foundation plans prior to construction. For **Mitigation Measure MM 4.7-2**, prior to the issuance of building or grading permits, the Project proponent shall conduct a full geotechnical study to evaluate soil conditions and submit the study to the Kern County Public Works Department for review and approval. **Mitigation Measure MM 4.7-3**, will require the Project proponent to retain a California-registered engineer to design the Project facilities to withstand probable seismically induced ground shaking at the site; the final design will need to be approved by the Kern County Inspection Department.

For **Mitigation Measure MM 4.7-4**, the building location will need to be stabilized against liquefaction by dynamic compaction or another accepted soil stabilization method. **Mitigation Measure MM 4.7-5** will require a geotechnical evaluation to be approved by the Kern County Public Works Department prior to grading permits being issued to determine the appropriate engineering for foundations and support structures as well as building requirements. **Mitigation Measure MM 4.7-6** requires the Project proponent to minimize erosion to the greatest extent possible by using existing roads. Lastly, **Mitigation Measure MM 4.7-7** requires that the Project proponent's final grading plans include BMPs to limit on-site and off-site erosion, a water plan to treat disturbed areas during construction and reduce dust, and a plan for the disposal of drainage waters originating on site and from adjacent rights-of-way.

The buildings and additional site components would be constructed following all other applicable codes, such as those that require property line and public roadway setbacks to protect the public and on-site staff from potential hazards associated with the facilities that could result from an earthquake. Thus, adherence to Kern County Building Code requirements, the CBC, and **Mitigation Measures MM 4.7-1** through **MM 4.7-7** would ensure that seismic hazards would be minimized; impacts related to ground shaking would be less than significant.

Mitigation Measures

MM 4.7-1 The Project proponent shall limit grading to the minimum area necessary for construction. Prior to the initiation of construction, the project proponent shall retain a California registered professional engineer to approve the final grading earthwork and foundation plans prior to construction.

MM 4.7-2 Prior to the issuance of grading permits for the project, the Project proponent shall conduct a full geotechnical study to evaluate soil conditions on the Project site and submit it to the Kern County Public Works Department for review and approval.

The geotechnical study must be signed and stamped by a California-registered professional engineer and must, at minimum, identify the following:

- a. Maximum considered earthquake and associated ground acceleration;
- b. Potential for seismically induced liquefaction, landslides, differential settlement, and mudflows;
- c. Stability of any existing or proposed cut-and-fill slopes; collapsible or expansive soils;
- d. Foundation material type;
- e. Recommendations for placement and design of facilities, foundations, and remediation of unstable ground.
- f. The project proponent shall determine the final siting of project facilities based on the results of the geotechnical study and implement recommended measures to minimize geologic hazards. The project proponent shall not locate project facilities on or immediately adjacent to a fault trace. All structures shall be offset at least 100-feet from any mapped fault trace. Alternatively, a detailed fault trenching investigation may be performed to accurately locate the fault trace(s) to avoid sighting improvements on or close to these fault structures and to evaluate the risk of fault rupture. After locating the fault, accurate setback distances can be proposed.
- g. The Kern County Public Works Department shall evaluate any final facility siting design developed prior to the issuance of any building permits to verify that geological constraints have been avoided.

MM 4.7-3 Prior to the issuance of grading permits, the project proponent shall retain a California registered engineer to design the project facilities to withstand probable seismically induced ground shaking at the site. All grading and construction on-site shall adhere to the specifications, procedures, and site conditions contained in the final design plans, which shall be fully compliant with the seismic recommendations of the California-registered professional engineer. The procedures and site conditions shall encompass site preparation, foundation specifications, and protection measures for buried metal. The final structural design shall be subject to approval and follow-up inspection by the Kern County Building Inspection Department. Final design requirements shall be provided to the on-site construction supervisor and the Kern County Building Inspector to ensure compliance.

MM 4.7-4 Building locations shall be stabilized against the occurrence of liquefaction by dynamic compaction, or other accepted soil stabilization method approved by the County Building official.

MM 4.7-5 Prior to the issuance of grading permits, a geotechnical evaluation, consisting of field exploration (drilling and soil sampling), laboratory testing of soil samples, and engineering analysis, shall be prepared to determine soil properties related, but not limited, to ground-motion acceleration parameters, the amplification properties of the subsurface units at the specific site, the potential for hydrocompaction to

affect the proposed facilities, and the potential for collapsible, subsiding, or expansive soils to affect the proposed facilities.

These studies shall be used to determine the appropriate engineering for foundations and support structures as well as building requirements to minimize geotechnical hazard impacts. Copies of all analyses shall be submitted to the Kern County Public Works Department for review and approval. An approved copy of the evaluation shall be submitted to the Kern County Planning and Natural Resources Department.

MM 4.7-6 The Project proponent shall use existing roads to the greatest extent feasible to minimize erosion.

Prior to approval of the grading permit, final plans shall be reviewed and approved by the Kern County Public Works Department to confirm existing roads were used to the greatest extent feasible.

MM 4.7-7 The project proponent shall limit grading to the minimum area necessary for construction and operation of the project. Final grading plans shall include best management practices (BMPs) to limit on-site and off-site erosion, a water plan to treat disturbed areas during construction and reduce dust, and a plan for the disposal of drainage waters originating on-site and from adjacent rights-of-ways (if required).

The plans shall be submitted to the Kern County Public Works Department for review and approval.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.7-1** through **MM 4.7-7** impacts would be less than significant after mitigation.

Impact 4.7-3: The Project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death, involving seismic-related ground failure, including liquefaction.

Seismically induced ground failure and liquefaction occur when loose, water-saturated sediments of relatively low density are subjected to cyclic shaking that causes soils to lose strength or stiffness because of increased pore water pressure. Liquefaction generally occurs when the depth to groundwater is less than 50 feet. Based on a review of the available groundwater level data between approximately 1969 and 2011, groundwater ranged from approximately 130 to 500 feet below the ground surface. Furthermore, the Project is not in a current, mapped California Liquefaction Hazard Zone. Structures constructed as part of the Project would be required by State law to be constructed in accordance with all applicable CBC earthquake construction standards, including those relating to soil characteristics.

Due to the existing geotechnical conditions and the historical depth to groundwater, the potential for liquefaction is considered unlikely according to the geotechnical evaluation undertaken for the Project (Appendix F.1). Project conformance with building code requirements would reduce the potential for liquefaction to affect the Project.

The overall Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage, and logistics uses, with a secondary application of cold storage occupying up to 20% of the facility. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage and distribution for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, and tools typically found in a modern distribution/logistics facility consistent with the M-1 PD-H Zone District. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (for example, building code, fire code, and plumbing code). Outdoor storage is not proposed as part of this Project. Due to operations and product handling occurring within the warehouse or on entirely paved surfaces that would have undergone sufficient geological surveying for the potential of liquefaction prior to occupancy, Project-level impacts are not expected to increase impacts to a significant level and additional mitigation measures specific to product-type are not warranted. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

Less than significant.

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

As noted previously, the Project site lies within the central portion of unincorporated Kern County, California. The Project site is approximately 1.7 miles north of the incorporated City of Bakersfield and approximately 3.1 miles east of the incorporated City of Shafter. Most of the site is relatively flat with topographic relief on the order of approximately 50 feet. The elevation of the Project site ranges between approximately 495 feet above mean sea level to approximately 540 feet with a gentle northeasterly slope. Given the relatively flat terrain for Project components, the potential for landslides on the Project site is considered low.

The overall Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage, and logistics uses, with a secondary application of cold storage occupying up to 20% of the facility. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage and distribution for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts,

materials, tires, tools, etc. typically found in a modern distribution/logistics facility consistent with M-1 PD-H Zone District. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (for example, building code, fire code, and plumbing code). Outdoor storage of bulk and wholesale materials is not proposed as part of this Project. Due to operations and product-handling occurring within the warehouse or on entirely paved surfaces that would have undergone sufficient geological surveying for the potential of landslides prior to buildout, Project-level impacts are not expected to increase impacts to a significant level and additional mitigation measures specific to product-type are not warranted.

Therefore, adverse effects related to landslides are not anticipated to occur or pose a hazard to the Project or surrounding area, and there would be no impact.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact.

Impact 4.7-5: The Project would result in substantial soil erosion or the loss of topsoil.

Site preparation activities for the Project would include grading activities that would disturb surface soils. Construction of the Project sites would involve earth-disturbing activities that could expose soils to the effects of wind or water erosion. Although the Project site consists of relatively flat topography and would not involve substantive cut and fill operations, earthmoving and construction activities could loosen soil, and removing existing minimal vegetation could contribute to soil loss and erosion.

Vegetation clearing and grading activities could lead to exposed or stockpiled soils susceptible to peak stormwater runoff flows and wind forces. During rainfall events, particularly during construction activities when surface soils are exposed, there is the potential for increased surface erosion and sediment transport and subsequent deposition to off-site areas. Project grading would be minimized to the extent feasible to reduce unnecessary soil movement that may result in the increased loss of topsoil. Scrapers, excavators, dozers, water trucks, haul vehicles, and/or graders may be used in site preparation and some trenching would be required for installation of the underground cables and circuits on-site. These activities would increase the potential for erosion to occur.

Project operations regarding the facility are not expected to contribute to soil erosion because most operations will be performed in one of the two buildings on-site. The overall Project's primary function would be high cube transload warehouse storage to facilitate material handling equipment, storage and logistics uses, with a secondary application of cold storage occupying up to 20% of the facility. The warehouses would serve trucks exclusively and would require truck doors of various

types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage and distribution for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, tools typically found in a modern distribution/logistics facility consistent with M-1 PD-H Zone District. Outdoor storage of bulk and wholesale materials is not proposed as part of this Project. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (that is, building code, fire code, and plumbing code, etc.). Due to operations and product handling occurring within the warehouse or on entirely paved surfaces that would have undergone sufficient geological surveying for the potential of soil erosion prior to buildout, Project-level impacts are not expected to increase impacts to a significant level and additional mitigation measures specific to product-type are not warranted. Project operations would not entail on-going ground disturbance.

While construction would have the potential to increase erosion, as discussed in Section 4.10, *Hydrology and Water Quality*, the Project would implement **Mitigation Measure MM 4.10-1**, that requires preparation of a SWPPP. The development of required SWPPP and BMPs, would be informed by the final hydrologic study and drainage plan. The SWPPP would be prepared and implemented per the requirements of Kern County for Projects that disturb more than 1 acre of soil. The SWPPP would detail that existing vegetation and topography are to be preserved to the maximum extent possible. These documents would include drainage and erosion controls designed to minimize potential increases in runoff from the Project site following Project implementation. This would include an evaluation and recommendation to minimize the potential for erosion and sedimentation to carry materials off site. Engineering recommendations would include measures to offset increases in stormwater runoff, as well as identification of design measures to minimize or manage potential flow concentrations or changes in flow depths or velocity so as to minimize erosion, sedimentation, and flooding potential on site or off site.

The SWPPP would also specify various types of BMPs including erosion control BMPs to prevent soil from moving off site; all temporary erosion control measures required by the Kern County Grading Code (Chapter 17.28.140) would be incorporated into the SWPPP. Preparation of the erosion control plans would be informed by the geotechnical report that would include evaluation of soils. This information would be used to prepare the grading plans and perform drainage calculations pursuant to the Kern County Grading Code (Section 17.28.070). All materials related to the SWPPP would be submitted to the Kern County Engineering and Survey Services Department prior to approval and obtaining required grading permits.

The Project would implement **Mitigation Measure MM 4.7-7**, as described above, and **Mitigation Measure MM 4.7-8**, which requires the preparation of a Soil Erosion and Sedimentation Control Plan to mitigate potential loss of soil and erosion. As a result, Project construction would have less than significant impacts related to erosion.

Mitigation Measures

Implement **Mitigation Measure MM 4.10-1** (Section 4.10, *Hydrology and Water Quality*), **Mitigation Measure MM 4.7-7**, and:

- MM 4.7-8** The Project proponent shall prepare a Soil Erosion and Sedimentation Control Plan to mitigate potential loss of soil and erosion. The plan shall be prepared by a California registered civil engineer or other professional approved to prepare said Plan and submitted for review and approval by the Kern County Public Works Department prior to issuance of grading permits. The Soil Erosion and Sedimentation Control Plan shall include, but is not limited to, the following:
- a. Best Management Practices to minimize soil erosion consistent with Kern County grading requirements and the California Regional Water Quality Control Board requirements pertaining to the preparation and approval of a Stormwater Pollution Prevention Plan (Best Management Practices recommended by the Kern County Public Works Department shall be reviewed for applicability).
 - b. Sediment collection facilities as may be required by the Kern County Public Works Department;
 - c. A timetable for full implementation, estimated costs, and a surety bond or other security as approved by the County; and
 - d. Other measures required by the County during permitting, including long-term monitoring (post-construction) of erosion control measures until site stabilization is achieved.
 - e. Provisions to comply with local and state codes relating to drainage and runoff, including use of pervious pavements, and/or other methods to the extent feasible, to increase stormwater infiltration and reduce runoff onto agricultural lands.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.7-8**, impacts would be less than significant.

Impact 4.7-6: The Project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse.

Landslides

As described above, the Project is in a relatively flat-lying plain where landslides are not anticipated due to the absence of steep slopes. Therefore, adverse effects related to landslides would not pose a hazard to the Project or surrounding area and there would be no impact.

Lateral Spreading

Due to the low potential for liquefaction, the depth of groundwater, and because the Project site is not near free faces or bodies of water, the potential for impacts due to lateral spreading is considered low but will be evaluated in the geotechnical report to be prepared for the Project.

This site-specific exploration would be included as part of the design level geotechnical investigation. The subsurface data would be used to complete the final design of the Project and associated structures in consultation with the County in a manner that meets applicable State and County building, grading and construction codes, ordinances, and standards. Therefore, as required, the geologic hazards, including liquefaction, collapse and subsidence, would be fully evaluated and based on the conclusions of the report, site-specific design would be implemented that would minimize geologic hazard-related impacts. Impacts would be less than significant.

Subsidence

As discussed previously, the soils at the Project site did not generally indicate the presence of soils susceptible to collapse or excessive settlement. Furthermore, based on the geotechnical evaluation (Appendix F.1) and based on the local site geologic conditions, the potential for subsidence in the site development area is considered low. The full geotechnical study required by **Mitigation Measure MM 4.7-2** would be prepared for the Project to identify and resolve any soil conditions including subsidence. Based on the conclusions of the report, recommended mitigation measures would be implemented to minimize this geologic hazard-related impact. Impacts would be less than significant.

Liquefaction

As discussed in **Impact 4.7-3**, above, liquefaction potential is anticipated to be low, but this would be formally evaluated in the subsequent geotechnical report. Based on the conclusions of the report, recommended mitigation measures would be implemented to minimize this geologic hazard. Impacts would be less than significant.

The overall Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage, and logistics uses, with a secondary application of cold storage occupying up to 20% of the facility. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage and distribution for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, and tools typically found in a modern distribution/logistics facility consistent with M-1 PD-H Zone District. Outdoor storage of bulk and wholesale materials is not proposed as part of this Project. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (that is, building code, fire code, and plumbing code, etc.). Due to operations and product handling occurring within the warehouse or on entirely paved surfaces that would have undergone sufficient geological surveying prior to occupancy, Project-level impacts are not expected to increase impacts to a significant level and additional mitigation measures specific to product type are not warranted.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

Impacts would be less than significant.

Impact 4.7-7: The Project would be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

Expansive soils are fine-grained soils (generally high plasticity clays) that can undergo a significant increase in volume with an increase in water content and a significant decrease in volume with a decrease in water content. Changes in the water content of a highly expansive soil can result in severe distress to structures constructed on or against the soil. The shrink–swell patterns of expansive soils can damage Project improvements over time if not addressed appropriately before construction.

To understand the soil types on the Project site, LGC excavated 15 small-diameter borings ranging in depth from approximately 5 feet to 50 feet below existing grade; performed in situ field infiltration tests within Borings I-5 through I-18; and performed laboratory testing of select samples. The subsurface evaluations indicated that the site primarily contains medium-dense to dense sands with varying amounts of silts and stiff to hard silts and clays to the maximum explored depth of approximately 50 feet below the existing grade. Based on laboratory testing results, site soils are anticipated to have a “Very Low” expansion potential. It is recommended that the final expansion potential of site soils should be determined when grading is complete. Results of expansion testing at finish grades will be used to confirm the final foundation design.

Mitigation Measure MM 4.7-2 requires that a geotechnical study to evaluate soil conditions and geologic hazards including an evaluation for expansive soils and provide recommendations consistent with CBC requirements to reduce potential adverse effects from expansive soils and the shrink–swell pattern potential be performed by a qualified geotechnical engineer on the Project site. All grading and construction on site would adhere to the specifications, procedures, and site conditions contained in the final design plans, which would be fully compliant with the recommendations provided by the California-registered professional engineer in accordance with California and Kern County Building Code requirements. The required measures would encompass site preparation such as treatment of expansive soils or replacement with engineered fill.

The final designs would be subject to approval and follow-up inspection by the Kern County Building Inspection Department. Final design requirements would be provided to the onsite construction supervisor and the Kern County Building Inspector to ensure compliance. Therefore, with implementation of **Mitigation Measure MM 4.7-2**, impacts would be less than significant.

Mitigation Measures

Implement **Mitigation Measure MM 4.7-2**, as described above.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.7-2**, impacts would be less than significant.

Impact 4.7-8: The Project would have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater.

Development of septic systems or alternative wastewater disposal systems is not proposed as a part of the Project. The Project proponent has secured a will serve letter from the North of River Sanitary District confirming the Project site can connect to the District's sewer system (Appendix H.3). Furthermore, the Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements in order to accommodate specialized storage for a variety of products as described above. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (that is, building code, fire code, and plumbing code, etc.) as outdoor storage is not proposed as part of this Project. The installation of septic tanks or alternative wastewater disposal systems is not expected to be part of the proposal to accommodate specific goods and materials. Thus, no impact would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.7-9: The Project would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, as defined in CEQA Guidelines Section 15064.

The results of the records search and the literature review indicate that the Project area is situated upon exposures of Pleistocene-age alluvium, which has a high potential to contain significant, nonrenewable fossil remains, especially in undisturbed subsurface sediments (Appendix F.2). Similar sediments are known to have yielded significant fossils elsewhere in Southern California. Past agricultural activities and earth-moving operations in the Project area have left the surface sediments extensively disturbed, but earth-moving operations at depth may potentially disrupt paleontological remains. The high paleontological resource potential of the Tulare Formation suggests that construction of the Project may result in impacts on paleontological resources.

If encountered, disturbance of significant fossils would result in a potentially significant impact on paleontological resources. However, the implementation of **Mitigation Measure MM 4.7-9** through **MM 4.7-11** would require the Project proponent to retain a qualified paleontologist to carry out all mitigation measures related to paleontological resources. A qualified paleontological monitor would be required during all ground-disturbing activity that occurs at a depth of 5 feet or

deeper below ground surface, and appropriate treatment of accidentally uncovered paleontological resources. Therefore, impacts on paleontological resources would be reduced to less than significant.

Mitigation Measures

MM 4.7-9 Prior to the issuance of grading permits, the project proponent shall retain a qualified Paleontologist, defined as a Paleontologist meeting the Society for Vertebrate Paleontology's Professional Standards (Society for Vertebrate Paleontology 2010), to carry out all mitigation measures related to paleontological resources. The qualified Paleontologist and the Lead Archaeologist may be the same individual:

- a. Prior to the start of any ground-disturbing activities, the qualified paleontologist shall prepare a Paleontological Resources Awareness Training program for all construction personnel working on the proposed project. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological Resources Awareness Training Guide shall be submitted to the Kern County Planning and Natural Resources Department. The training guide may be presented in video form.
- b. Paleontological Resources Awareness Training may be conducted in conjunction with the archaeological resources training.
- c. The training shall include an overview of potential paleontological resources that could be encountered during ground-disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified Paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized fossil collecting or intentional disturbance of paleontological resources.
- d. The project applicant shall ensure all new on-site construction personnel who have not participated in earlier Paleontological Resources Awareness Trainings shall meet the provisions specified above.
- e. The Paleontological Resources Awareness Training Guides shall be kept available for all personnel to review and be familiar with as necessary.

MM 4.7-10 During construction the qualified Paleontologist or designated monitor shall monitor all ground-disturbing activity (with the exception of vibratory or hydraulic installation of tracking or mounting structures and foundations or supports) that occurs at a depth of 5 feet or deeper below ground surface:

- a. The duration and timing of monitoring shall be determined by the qualified Paleontologist in consultation with the Kern County Planning and Natural Resources Department and shall be based on a review of geologic maps and grading plans.

1. During the course of monitoring, if the paleontologist can demonstrate based on observations of subsurface conditions that the level of monitoring should be reduced, the Paleontologist, in consultation with the Kern County Planning and Natural Resources Department, may adjust the level of monitoring to circumstances, as warranted.
- b. Paleontological monitoring shall include inspection of exposed rock units during active excavations within sensitive geologic sediments. The qualified Paleontologist shall have authority to temporarily divert excavation operations away from exposed fossils to collect associated data and recover the fossil specimens if deemed necessary.
- c. Following the completion of monitoring, the paleontologist shall prepare a report documenting the absence or discovery of fossil resources on-site. If fossils are found, the report shall summarize the results of the inspection program, identify those fossils encountered, recovery and curation efforts, and the methods used in these efforts, as well as describe the fossils collected and their significance. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to an appropriate repository such as the Natural History Museum of Los Angeles County.

MM 4.7-11 If a paleontological resource is found, the project contractor shall cease ground-disturbing activities within 50 feet of the find. The qualified Paleontologist shall evaluate the significance of the resources and recommend appropriate treatment measures. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis. Any fossils encountered and recovered shall be cataloged and donated to a public, non-profit institution with a research interest in the materials. Accompanying notes, maps, and photographs shall also be filed at the repository.

Level of Significance After Mitigation

With the implementation of **Mitigation Measure MM 4.7-9** through **MM 4.7-11**, impacts would be less than significant.

4.7.5 Cumulative Setting Impacts and Mitigation Measures

Cumulative Setting

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects in the vicinity of the Project site. Cumulative projects listed in **Table 3-4**, Cumulative

Projects List, would be subject to relatively similar seismic hazards of the Project. However, the effects of these Projects are not of a nature to cause cumulatively significant effects from geologic impacts or on soils because such impacts are site-specific and would only have the potential to combine with impacts of the Project if they occurred in the same location as the Project.

Development of the Project, with the implementation of the regulatory requirements discussed above, would result in less than significant impacts related to exposing persons or structures to geology, soils, or seismic hazards.

Although the entire region is a seismically active area, geologic and soil conditions vary widely within a short distance, making the cumulative context for potential impacts resulting from exposing people and structures to related risks one that is more localized or even site-specific. Similar to the Project, other projects in the area would be required to adhere to the same California and Kern County building codes, which would reduce the risk to people and property to less-than-significant levels. While future seismic events cannot be predicted, adherence to all federal, State, and local programs, requirements, and policies pertaining to building safety and construction would limit the potential for injury or damage to a less than significant level. Therefore, the Project, combined with past, present, and other foreseeable development in the area, would not result in a cumulatively significant impact by exposing people or structures to risk related to geologic hazards, soils, and/or seismic conditions. The Project would result in less than significant cumulative impacts related to geology and soils.

Mitigation Measure MM 4.7-1 requires the Project proponent to limit grading to the minimum area necessary for construction. Prior to the initiation of construction, the Project proponent shall retain a California-registered professional engineer to approve the final grading earthwork and foundation plans before construction. **Mitigation Measure MM 4.7-2** requires a geotechnical study to evaluate soil conditions and geologic hazards to be performed by a qualified geotechnical engineer on the Project site and to design the Project facilities to withstand probable seismically induced ground shaking, liquefaction and subsidence. Surficial deposits, namely erosion and sediment deposition, can be cumulative in nature, depending on the type and amount of development proposed in a given geographical area. The cumulative setting for soil erosion consists of existing, planned, proposed, and reasonably foreseeable land use conditions in the region. However, construction constraints are primarily based on specific sites within a proposed development and soil characteristics and topography of each site. Erosion impacts of the Project during construction would be mitigated through the implementation of a SWPPP and appropriate BMPs, as required by **Mitigation Measure MM 4.10-1**, as discussed in Section 4.10, *Hydrology and Water Quality*. Other individual Projects also would be required to comply with applicable codes, standards, and permitting requirements (for example, preparation of a SWPPP) to mitigate erosion impacts. Other cumulative Projects would be required to adhere to similar requirements, thereby minimizing cumulative erosion impacts. Specifically, all planned Projects in the vicinity of the Project are subject to environmental review and would be required to conform to the Kern County General Plan and Building Code and would implement additional mitigation of seismic hazards to ensure soil stability, especially related to seismically induced erosion. With the implementation of **Mitigation Measures MM 4.7-2** and **MM 4.10-1** (Section 4.10, *Hydrology and Water Quality*), the Project would not contribute to any cumulative impacts for geologic, seismic

hazards or related events. Cumulative impacts related to geology and soils would be less than significant.

The geographic scope for cumulative effects to paleontological resources includes the southern portion of the San Joaquin Valley. Given similarities in geologic formations, this area is expected to contain similar paleontological resources. There is no temporal scope because direct impacts on paleontological resources are permanent. Cumulative impacts on paleontological resources in the study area could occur if other related projects, in conjunction with the Project, had or would have impacts on paleontological resources that, when considered together, would be significant. Development of the Project, in combination with other projects in the area, has the potential to contribute to a cumulatively significant paleontological resources impact due to the potential loss of paleontological resources unique to the region.

However, **Mitigation Measures MM 4.7-9 through 4.7-11** are included in this Draft EIR to reduce potentially significant Project impacts on paleontological resources during construction of the Project. Implementation of **Mitigation Measure MM 4.7-2** requires a final engineering design-specific geotechnical study to be prepared. Implementation of **Mitigation Measure MM 4.7-3** requires a California-registered engineer to design the Project facilities to withstand probable seismically induced ground shaking at the site. **Mitigation Measure MM 4.7-4** would require all building locations to be stabilized against the occurrence of liquefaction, **Mitigation Measure MM 4.7-5** would require a geotechnical evaluation to determine appropriate engineering for foundations and support structures, **Mitigation Measure MM 4.7-6** would require the use of existing roads to the greatest extent possible, **Mitigation Measure MM 4.7-7** would require the Project to limit grading and incorporate BMPs to reduce erosion, and **Mitigation Measure MM 4.7-8** would require the preparation of a Soil Erosion and Sedimentation Control Plan. Given the above mitigation measures and the requirement for similar mitigation for other Projects in the San Joaquin Valley, cumulative impacts on geology would be less than significant.

Mitigation Measures

Implement **Mitigation Measures MM 4.7-1 through 4.7-11**, as described above, and **Mitigation Measure MM 4.10-1**, see Section 4.10, *Hydrology and Water Quality*.

Level of Significance after Mitigation

Cumulative impacts would be less than significant with the implementation of **Mitigation Measures MM 4.7-1 through 4.7-11**, as described above, and **Mitigation Measure MM 4.10-1**.

Section 4.8

Greenhouse Gas Emissions

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Section 4.8

Greenhouse Gas Emissions

4.8.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding greenhouse gas (GHG) emissions and global climate change. It also evaluates the impacts on GHG that would result from the implementation of the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the May 23, 2024, Airport Drive Warehouse Greenhouse Gas Analysis prepared by Urban Crossroads, Inc. (Appendix B.3).

4.8.2 Environmental Setting

GHGs and climate change are a cumulative global issue. The California Air Resources Board (CARB) and the U.S. Environmental Protection Agency (EPA) regulate GHG emissions within the State of California and the United States, respectively. While CARB has the primary regulatory responsibility within California for GHG emissions, local agencies can also adopt policies for GHG emission reduction. CARB has divided California into regional air basins. The Project is located within Kern County's (County's) portion of the San Joaquin Valley Air Basin (SJVAB). Kern County is included among the eight counties that make up the San Joaquin Valley Air Pollution Control District (SJVAPCD).

Global Climate Change

“Global climate change,” often used interchangeably with “global warming,” refers to changes in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation, and storms, lasting for decades or longer. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), nitrogen trifluoride (NF₃), and sulfur hexafluoride (SF₆). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radiative heat from escaping, thus warming the earth's atmosphere. Global climate change can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. According to the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report, the global surface temperature in 2011–2020 increased 1.1 degrees Celsius (°C) above the 1850–1900 temperature (IPCC 2023). Global GHG emissions continued to increase over 2010–2019, with unequal historical and ongoing contributions

arising from unsustainable energy use, land use and land use change, lifestyles and patterns of consumption and production across regions, between and within countries, and between individuals. The IPCC's *Sixth Assessment Report* states that it is unequivocal that human influence has warmed the atmosphere, ocean and land, resulting in widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere (IPCC 2023).

An individual project, like the Project, cannot generate enough GHG emissions to affect a discernible change in global climate. However, the Project may participate in the potential for global climate change by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on global climate change.

Greenhouse Gases

Constituent gases that trap heat in the earth's atmosphere are called GHGs, analogous to the way a greenhouse retains heat. GHGs play a critical role in Earth's radiation budget by trapping infrared radiation emitted from the Earth's surface, which would otherwise escape into space. This natural phenomenon, known as the "greenhouse effect," is therefore responsible for maintaining a habitable climate.

The standard definition of GHGs includes six substances identified in the Kyoto Protocol – CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆—plus chlorofluorocarbons (CFCs) and other chlorine or bromine-containing gases phased out under the Montreal Protocol.

Some GHGs, including CO₂, CH₄, and N₂O, are present in the atmosphere naturally, released by natural sources, or formed from secondary reactions taking place in the atmosphere. In the last 200 years, substantial quantities of GHGs have been released into the atmosphere, primarily from fossil fuel combustion. These human-induced emissions are increasing GHG concentrations in the atmosphere, therefore enhancing the natural greenhouse effect. The GHGs resulting from human activity are believed to be causing global climate change. While human-made GHGs include naturally present substances like CO₂, CH₄, and N₂O, some (like CFCs) are completely new to the atmosphere.

GHGs vary considerably in terms of global warming potential (GWP), the comparative ability of each GHG to trap heat in the atmosphere. The GWP is based on several factors, including the relative effectiveness of a gas to absorb infrared radiation and the length of time that the gas remains in the atmosphere (atmospheric lifetime). The GWP of each gas is measured relative to CO₂, the most abundant GHG. The definition of GWP for a particular GHG is the ratio of heat trapped by one unit mass of the GHG to the ratio of heat trapped by one unit mass of CO₂ over a specified time period. GHG emissions are typically measured in terms of pounds or tons of "CO₂ equivalents" (CO₂e).

The principal GHGs resulting from human activity that enter and accumulate in the atmosphere are described below.

- **Carbon Dioxide (CO₂)** is a colorless, odorless gas emitted from natural and human-made sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO₂ is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks. Since the Industrial Revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution.
- **Methane (CH₄)** is a colorless, odorless nontoxic gas with both natural and human-made sources. CH₄ is combustible, and it is the main constituent of natural gas—a fossil fuel. CH₄ is also released when organic matter decomposes in low oxygen environments. Natural sources include wetlands, swamps and marshes, termites, and oceans. Human sources include the mining of fossil fuels and transportation of natural gas, digestive processes in ruminant animals such as cattle, rice paddies, and the buried waste in landfills. Over the last 50 years, human activities, such as growing rice, raising cattle, using natural gas, and mining coal, have added to the atmospheric concentration of CH₄. Other anthropogenic sources include fossil fuel combustion and biomass burning.
- **Nitrous Oxide (N₂O)** is a colorless, nonflammable gas with a sweetish odor, commonly known as “laughing gas,” and sometimes used as an anesthetic. N₂O is naturally produced in the oceans and in rainforests. Human-made sources of N₂O include the use of fertilizers in agriculture, nylon and nitric acid production, cars with catalytic converters, and the burning of organic matter. Concentrations of N₂O also began to rise at the beginning of the Industrial Revolution.
- **Chlorofluorocarbons (CFCs)** are gases formed synthetically by replacing all hydrogen atoms in CH₄ or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically unreactive in the troposphere (the level of air at the earth’s surface). CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants, and cleaning solvents. Because of the discovery that they can destroy stratospheric ozone, an ongoing global effort to halt their production was undertaken and has been extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years.
- **Sulfur Hexafluoride (SF₆)** is an inorganic, odorless, colorless, nontoxic, nonflammable gas and extremely potent GHG. SF₆ is very persistent, with an atmospheric lifetime of more than a thousand years. Thus, a relatively small amount of SF₆ can have a significant long-term impact on global climate change. SF₆ is human-made, and the primary user of SF₆ is the electric power industry. Because of its inertness and dielectric properties, it is the industry's preferred gas for electrical insulation, current interruption, and arc quenching (to

prevent fires) in the transmission and distribution of electricity. SF₆ is used extensively in high-voltage circuit breakers and switchgear, and in the magnesium metal casting industry.

- **Hydrofluorocarbons (HFCs)** are synthesized chemicals that are used as a substitute for CFCs. Out of all of the GHGs, HFCs are one of three groups with the highest GWP. HFCs are synthesized for applications such as automobile air conditioners and refrigerants.
- **Perfluorocarbons (PFCs)** have stable molecular structures and do not break down through the chemical processes in the lower atmosphere. Because of their molecular stability, PFCs have very long lifetimes, between 10,000 and 50,000 years. The two main sources of PFCs are primary aluminum production and semiconductor manufacture.

CO₂, CH₄, and N₂O are the primary contributors to global climate change from development projects, such as the Project. The potential health effects from exposure to CO₂, CH₄, and N₂O as they relate to development projects are still being debated in the scientific community. Their cumulative effects on global climate change have the potential to cause adverse effects to human health.

Greenhouse Gas Emissions Sources and Inventories

History

In the first part of the twentieth century, it was suspected that the concentration of atmospheric CO₂ might be increasing in the atmosphere due to fossil fuel combustion. However, there were relatively few measurements of this gas and the measurements varied widely.

In 1953 Charles (Dave) David Keeling began a postdoctoral position at Caltech, Pasadena, California under Professor Harrison Brown. His initial project was aimed at extracting uranium from granite rock with applications in the nuclear power industry. He never really started this project but with encouragement from Professor Brown became involved in another project investigating the equilibria between carbonate in surface waters, limestone, and atmospheric CO₂. This involved the construction of a precision gas manometer to measure CO₂ extracted from the air as well as acidified samples of water.

Dave Keeling found significant variations in CO₂ concentration in Pasadena, probably due to industry, and later took his sampling equipment to Big Sur near Monterey. There he began to take air samples throughout the day and night and soon detected an intriguing diurnal pattern. The air contained more CO₂ at night than during the day and after correcting for the effects of water vapor, had about the same amount of CO₂ every afternoon, 310 parts per million (ppm). He used stable isotope ratio mass spectrometry measurements of the CO₂ he extracted to show that the 13C/12C ratio in CO₂ at night was smaller than during the day and a function of plant respiration.

He repeated these measurements in the rainforests of the Olympic peninsula and high mountain forests in Arizona. Everywhere the data were the same: strong diurnal behavior with steady values of about 310 ppm in the afternoon. The explanation for the results came from a book on meteorology describing diurnal patterns in turbulence in the atmosphere. In the afternoon Dave Keeling was measuring CO₂ concentrations representative of the “free atmosphere,” concentrations

that prevailed over a large part of the Northern Hemisphere. At nighttime with a lower boundary layer, the CO₂ concentration was heavily influenced by respiration from local plants and soils.

Little did Dave Keeling know then that he had laid the basis for his notable career investigating the global behavior of atmospheric CO₂.

In 1956 Dave Keeling's measurements came to the attention of Harry Wexler at the U.S. Weather Bureau and Roger Revelle at Scripps Institution of Oceanography. To both these organizations he proposed a global program based on infrared gas analyzers to measure the atmospheric CO₂ concentration at several remote locations around the world including the South Pole station and at Mauna Loa in Hawaii. The proposal was supported by and became one of the features of the International Geophysical Year (IGY) beginning in July 1957 and ending in December 1958.

Using IGY funds from the Weather Bureau, Dave Keeling bought four infrared gas analyzers from the Applied Physics Corporation. One of these was installed at Mauna Loa in March 1958 and on the first day of operation recorded an atmospheric CO₂ concentration of 313 ppm.

To Dave Keeling's surprise, however, the CO₂ concentration at Mauna Loa had risen by 1ppm in April 1958 to a maximum in May when it began to decline reaching a minimum in October. After this, the concentration increased again and repeated the same seasonal pattern in 1959. In Dave Keeling's words, "We were witnessing for the first time nature's withdrawing CO₂ from the air for plant growth during summer and returning it each succeeding winter." In 1959 the average concentration had increased and increased still further in 1960 as shown in the graph.

Dave Keeling's analytical skills and dedication had paid off with two dramatic discoveries: First, the natural seasonal "breathing" of the planet, and second, the rise in atmospheric CO₂ due to the combustion of fossil fuels by industry and land use changes. Published in the 1960 Tellus Article, "The concentration and isotopic abundances of carbon dioxide in the atmosphere" (Keeling 1960), these significant findings marked the beginning of the now world-famous "Keeling Curve" which extends for 55 years and represents one of the most important geophysical records ever made.

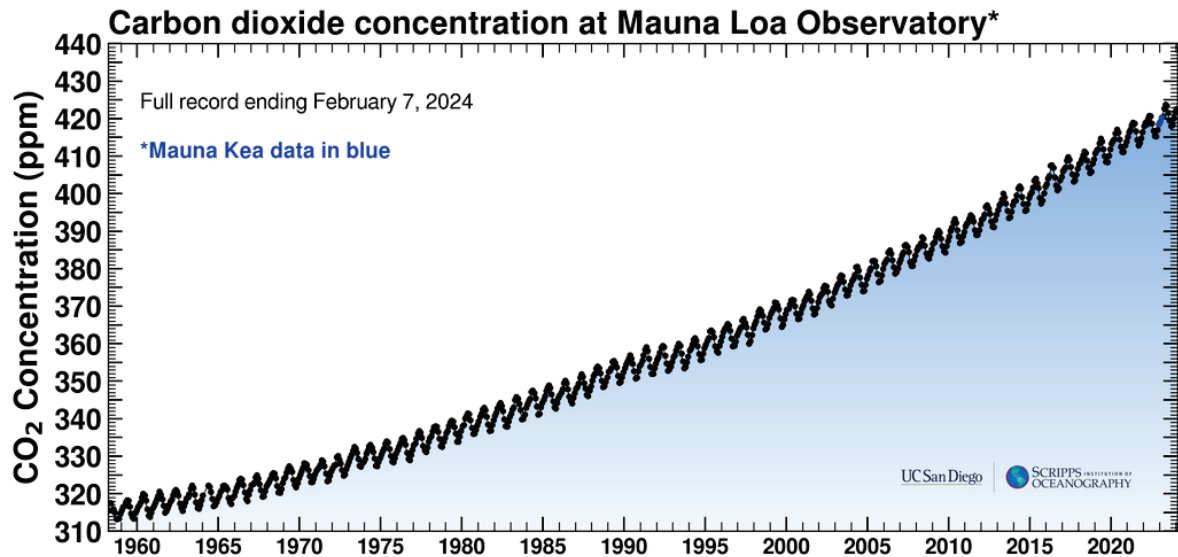
By the early 1970s, this curve was getting serious attention and played a key role in launching a research program into the effect of rising CO₂ on climate. Since then, the rise has been relentless and shows a remarkably constant relationship with fossil fuel burning and can be well accounted for based on the simple premise that 57% of fossil fuel emissions remain airborne.

The Mauna Loa record can now be placed in the context of the variations in CO₂ over the past 400,000 years, based on reconstructions from polar ice cores. During ice ages, the CO₂ levels were around 200 ppm, and during the warmer interglacial periods, the levels were around 280 ppm.

Looking ahead, if the rate of fossil fuel burning continues to rise on a business-as-usual trajectory, such that humanity exhausts the reserves over the next few centuries, CO₂ will continue to rise to levels of order 1,500 ppm. The atmosphere will not return to preindustrial levels even tens of thousands of years into the future. Based on this trend, it is clear that humanity is on the threshold of a new era of geologic history, one with a climate very different from that of humanity's ancestors. These curves not only demonstrate the implications of rising CO₂ levels but also illustrate the power

of continuous time series to communicate and clarify the essential science as shown on **Figure 4.8-1**.

Figure 4.8-1: Keeling Curve Diagram



Sources and Emissions

On a global scale, GHG emissions are predominantly associated with activities related to energy production; changes in land use, such as deforestation and land clearing; industrial sources; agricultural activities; transportation; waste and wastewater generation; and commercial and residential land uses. Worldwide, energy production including the burning of coal, natural gas, and oil for electricity and heat is the largest single source of global GHG emissions.

The EPA releases an annual GHG inventory that tracks U.S. GHG emissions and sinks by source, economic sector, and GHG going back to 1990. In 2022, U.S. GHG emissions totaled 6,343.2 million metric tons (MMT) of CO₂e, or 5,489.0 MMT CO₂e after accounting for sequestration (also referred to as “storage”; these terms are used synonymously throughout the regulatory landscape) from the land sector. Overall, net emissions increased by 1.3% from 2021 to 2022 and decreased by 16.7% from 2005 levels. In 2022, CO₂ emissions from fossil fuel combustion were 4,699.4 MMT CO₂e, or 1.1% below emissions in 1990. The transportation sector accounted for 28.4% of 2022 GHG emissions, the electric power industry accounted for 24.9%, the industrial sector accounted for 22.9%, commercial and residential accounted for 13.5%, and agriculture accounted for 10% (EPA 2024).

CARB is responsible for developing and maintaining the California GHG emissions inventory. This inventory estimates the amount of GHG emitted into and removed from the atmosphere by human activities within the state of California and supports the Assembly Bill (AB) 32 Climate Change Program. CARB’s current GHG emission inventory covers the years 2000 through 2021 and is based on fuel use, equipment activity, industrial processes, and other relevant data (for example, housing, landfill activity, and agricultural lands).

In 2021, statewide GHG emissions (in-state sources and imported electricity) were 381.3 MMT CO₂e, which is 12.6 MMT CO₂e higher than 2020 levels and 49.7 MMT CO₂e below the 2020 GHG Limit of 431 MMT CO₂e (CARB 2023). Per capita GHG emissions in California have decreased by 30.0% from a 2001 peak of 13.8 metric tons (MT) per person to 9.7 MT per person in 2021. CARB noted that the 2019 to 2020 decrease and the 2020 to 2021 increase in emissions is likely due in large part to the impacts of the COVID-19 pandemic, and economic recovery may result in emissions increases over the next few years. As such, emissions levels in 2020 are anomalous to the long-term trend, and the one-year increase from 2020 to 2021 should be considered in the broader context of the pandemic and subsequent economic recovery that took place in 2021.

CARB's inventory shows that the transportation sector was the source of approximately 38% of California's GHG emissions in 2021, followed by industrial sources at 19% and electricity generation at 16%. Other sources of GHG emissions were residential plus commercial activities at 10%, agriculture at 8%, high GWP gases at 6%, and recycling and waste at 2% (CARB 2023).

A community-wide GHG emissions inventory for the County was prepared by SJVAPCD in 2012. *The Kern County Community-wide GHG Emissions Inventory 2005 Baseline Year – 2020 Forecast* estimated GHG emissions for the base year 2005 and forecast year 2020 for nine primary sectors: electricity production and consumption, residential/commercial/industrial combustion, transportation, fossil fuels industry, industrial processes, waste management, agriculture, forestry and land use, and other sources (SJVAPCD 2012). The base year 2005 GHG emissions for the County were estimated at 27.0 MMT CO₂e. The Fossil Fuel Industry sector was the largest contributor, representing 40% of emissions, followed by the Electricity Consumption sector at 22%. GHG emissions in 2020 were forecast to be 27.3 MMT CO₂e, with the largest contribution from the Electricity Consumption sector at 31% followed by the Fossil Fuel Industry sector at 26%.

Effects of Global Climate Change

As described in the IPCC's *Sixth Assessment Report*, climate change is already affecting weather and climate extremes in every region across the globe. The direct effects of global warming vary regionally, but generally include the following (IPCC 2023):

- Higher maximum temperatures and more hot days over nearly all land areas
- Higher minimum temperatures, fewer cold days and frost days over nearly all land areas
- Higher ocean temperatures
- Higher levels of ocean acidification
- Glacial retreat and reduction in ice coverage
- Sea level rise
- Observed changes in weather extremes such as heatwaves, heavy precipitation, droughts, and tropical cyclones

Additionally, many secondary effects result from global warming. Secondary effects to the environment include biodiversity loss, heat stress and desertification, increased wildfire events, worsened air pollution events, impacts to agriculture, changes in disease vectors, and changes in habitat. Humans also experience secondary effects from climate change, including displacement and involuntary migration, reduced water and food security, adverse impacts on physical and mental health, and increased incidence of food-borne, waterborne, and vector-borne diseases. As a result, overall economic and societal impacts attributable to climate change are also increasing, such as the destruction of homes and infrastructure, loss of property and income, and adverse effects on gender and social equity.

Additional warming will increase the magnitude of these changes. IPCC near-term projections predict that every region in the world will face further increases in climate hazards, increasing multiple risks to ecosystems and humans. Hazards and associated risks expected in the near term include an increase in heat-related human mortality and morbidity, food-borne, waterborne, and vector-borne diseases, mental health challenges, flooding in coastal and other low-lying cities and regions, biodiversity loss in land, freshwater, and ocean ecosystems and a decrease in food production in some regions (IPCC 2023).

According to CARB, potential impacts specific to California due to global climate change may include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems (CARB 2018).

4.8.3 Regulatory Setting

In 1988, the IPCC was established to evaluate the impacts of global warming and to develop strategies that nations could implement to curtail global climate change. In 1992, an agreement with the goal of controlling GHG emissions was established by the United Nations Framework Convention on Climate Change. As a result, the Climate Change Action Plan was developed to address the reduction of GHGs in the United States. The plan consists of more than 50 voluntary programs. Additionally, the Montreal Protocol was originally signed in 1987 and substantially amended in 1990 and 1992. The Montreal Protocol stipulates that the production and consumption of compounds that deplete ozone in the stratosphere (CFCs, halons, carbon tetrachloride, and methyl chloroform) be phased out by 2000 (methyl chloroform was phased out by 2005).

In addition to these voluntary commitments and programs, many regulations have been adopted at the federal, state, and local levels to quantify and reduce GHG emissions. Descriptions of those relevant to the Project are presented in the following sections.

Although global warming and climate change have received substantial public attention for more than 20 years, the analytical tools have not been developed to determine the effect of worldwide global warming from a particular increase in GHG emissions, or the resulting effects on climate

change in a particular locale. The scientific tools needed to evaluate the impacts that a specific project may have on the environment are even further in the future.

Federal

U.S. Environmental Protection Agency

The principal air quality regulatory mechanism at the federal level is the Clean Air Act (CAA) and in particular, the 1990 amendments to the CAA and the National Ambient Air Quality Standards that it establishes. The EPA is responsible for implementing federal policy to address GHGs. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under Section 202(a) of the CAA. The EPA adopted a Final Endangerment Finding for the six defined GHGs (CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆), which was required before the EPA could regulate GHG emissions under Section 202(a)(1) of the CAA. The EPA also adopted a Cause or Contribute Finding in which the EPA Administrator found that GHG emissions from new motor vehicles and motor vehicle engines are contributing to air pollution, which is endangering public health and welfare. These findings do not themselves impose any requirements on industry or other entities. However, these actions were a prerequisite for implementing GHG emissions standards for vehicles. There are currently no federal regulations that set ambient air quality standards for GHGs.

Mandatory Reporting of Greenhouse Gases Rule (40 CFR Part 98)

This rule requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 MT CO₂e emissions per year (40 Code of Federal Regulations [CFR] Part 98). The Project would not be expected to trigger GHG reporting according to the rule.

Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule (40 CFR Part 52)

GHG emissions from the largest stationary sources were, for the first time, covered by the Prevention of Significant Deterioration (PSD) and Title V Operating Permit Programs beginning on January 2, 2011. The EPA's GHG Tailoring Rule, issued in May 2010, established a common sense approach to permitting GHG emissions under PSD and Title V. In June 2014, the U.S. Supreme Court ruled that the EPA cannot classify a facility as a major PSD or Title V source based solely on its GHG emissions meeting the major source threshold. However, the Supreme Court said that the EPA could continue to require that PSD permits, required due to criteria pollutant emissions, contain limitations on GHG emissions based on the application of Best Available Control Technology (EPA 2023a). The Project would not be expected to trigger PSD permitting as required by this regulation.

National Climate Action Plan

In 2021, EPA released its "US EPA's Climate Action Plan: October 2021" in response to Executive Order (EO) 14008 (EPA 2021). EO 14008, entitled "Tackling the Climate Crisis at Home and Abroad" (January 2021) calls for a government-wide approach to the climate crisis that reduces climate pollution in every sector of the economy; increases resilience to the impacts of climate

change; protects public health; conserves our lands, waters, and biodiversity; delivers environmental justice; and spurs well-paying jobs and economic growth, especially through innovation, commercialization, and deployment of clean energy technologies and infrastructure. The EPA intends to formalize its policy on adaptation with the revision of Department Manual Part 523 – Climate Change Adaptation. The policy will provide guidance to Bureaus and Offices for addressing climate change impacts on the EPA’s mission, programs, operations, and personnel.

Fuel Efficiency Standards for Construction Equipment

The federal government sets fuel efficiency standards for non-road diesel engines that are used in construction equipment. The regulations, contained in 40 CFR Parts 1039, 1065, and 1068, include multiple tiers of emission standards. Most recently, the EPA adopted a comprehensive national program to reduce emissions from non-road diesel engines by integrating engine and fuel controls as a system to gain the greatest reductions. To meet these Tier 4 emission standards, engine manufacturers will produce new engines with advanced control technologies.

Phase 1 and Phase 2 Heavy-Duty Vehicle GHG Standards

In 2011, the EPA and the U.S. Department of Transportation’s National Highway Traffic Safety Administration (NHTSA) jointly adopted the first federal GHG emission standards and fuel economy standards for heavy-duty engines and vehicles, referred to as the federal Heavy-Duty GHG Phase 1 regulation. The Phase 1 regulation required both engine and vehicle manufacturers to employ more efficient components and systems for model year 2014 and later tractors, vocational vehicles, heavy-duty pickup trucks and vans, and the engines powering such vehicles.

In 2016, the EPA and NHTSA jointly adopted federal Phase 2 standards that built on the Phase 1 standards, achieving additional GHG reductions. Phase 2 GHG emission standards are set for tractors, vocational vehicles, pickup trucks and vans, and trailers hauled by heavy-duty tractors. Separate engine standards are also established for the engines used in tractors and vocational vehicles. The progressively more stringent federal Phase 2 standards are phased-in from model years 2021 to 2027 for tractors, vocational vehicles, and pickup trucks and vans. For trailers, the standards are phased in from 2018 (2020 in California) through 2027.

SmartWay Program

The SmartWay Program is a public-private initiative between the EPA, large and small trucking companies, rail carriers, logistics companies, commercial manufacturers, retailers, and other federal and state agencies. Its purpose is to improve fuel efficiency and the environmental performance (reduction of both GHG emissions and air pollution) of the goods movement supply chains.

SmartWay effectively refers to requirements geared toward reducing fuel consumption. Most large trucking fleets driving newer vehicles are compliant with SmartWay design requirements. Moreover, over time, all heavy-duty trucks would have to comply with the CARB GHG Regulation which is designed with the SmartWay Program in mind, to reduce GHG emissions through increased fuel efficiency (EPA 2017).

Inflation Reduction Act of 2022

The Inflation Reduction Act of 2022 is considered the most ambitious climate law in U.S. history and is intended to reduce GHG emissions, help build a clean economy, reduce energy costs for Americans, and advance environmental justice. With funding from the act, the EPA has launched a network of clean energy financing and provided grant funding for climate pollution reduction programs (EPA 2023b).

State

A variety of statewide rules and regulations have been implemented or are in development in California that mandate the quantification or reduction of GHGs. Several gubernatorial EOs establish statewide GHG reduction goals. As a result of Senate Bill (SB) 97, the California Environmental Quality Act (CEQA) requires analysis and mitigation of GHG emissions and climate change in relation to a Project, where a project will result in a significant increase in GHG emissions. Certain Air Pollution Control Districts have proposed their own levels of significance. See the discussion of SJVAPCD significance thresholds in Section 4.8.4.

California Renewables Portfolio Standard (SB 100)

California's Renewables Portfolio Standard (RPS) was initially established in 2002 by SB 1078 and requires electricity providers (that is, utilities, cooperatives, and community choice aggregators) to provide a specified minimum portion of their electricity supply from eligible renewable resources by milestone target years. State legislative actions have since modified and accelerated the RPS several times, resulting in one of the most ambitious renewable energy standards in the country. In October 2015, SB 350 increased the state's renewable electricity procurement goal from 33% by 2020 to 50% by 2030. In addition, the state is required to double statewide energy efficiency savings in electricity and natural gas end uses by 2030.

In December 2021, SB 100 increased the renewable electricity procurement goal set by SB 350 from 50% to 60% by 2030 with new interim targets of 44% by 2024 and 52% by 2027. Additionally, SB 100 requires renewable energy and zero-carbon electricity systems to supply 100% of electric retail sales by 2045 (CPUC 2024).

Executive Order S-1-07

EO S-1-07 recognizes that the main source of GHG emissions in California is the transportation sector and establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10% by 2020. As a result of EO S-1-07, CARB approved a proposed regulation to implement the Low Carbon Fuel Standard (LCFS) to reduce GHG emissions from the transportation sector in California by approximately 16 MMT CO₂e by 2020. The LCFS is designed to reduce California's dependence on petroleum, create a lasting market for clean transportation technology, and stimulate the production and use of alternative, low carbon fuels in California. It provides a durable framework that establishes performance standards that fuel producers and importers must meet each year beginning in 2011.

Executive Orders S-3-05 and B-30-15 – Statewide Emission Reduction Targets

EO S-3-05 was established by Governor Arnold Schwarzenegger in June 2005 and sets statewide emission reduction targets through the year 2050:

- by 2010, reduce GHG emissions to 2000 levels;
- by 2020, reduce GHG emissions to 1990 levels; and
- by 2050, reduce GHG emissions to 80% below 1990 levels.

EO B-30-15 sets a target date of 2030 to reduce GHG emissions to 40% below 1990 levels. EOs S-3-05 and B-30-15 are only applicable to “State agencies with jurisdiction over sources of greenhouse gas emissions” (Order 4-29-2015 Section 2), and Kern County is not a State agency. Furthermore, there is currently no implementation strategy for these EOs (that is, a plan that apportions GHG reductions by economic sector/activity/region, similar to CARB’s Climate Change Scoping Plan).

Senate Bill 97

SB 97 was enacted requiring the Office of Planning and Research to develop guidelines for the mitigation of GHG emissions, or the effects related to releases of GHG emissions. The Office of Planning and Research submitted proposed amendments to the Natural Resources Agency in accordance with SB 97 regarding the analysis and mitigation of GHG emissions. As directed by SB 97, the Natural Resources Agency adopted amendments to the CEQA Guidelines for GHG emissions, which became effective in 2010.

Senate Bill 375

SB 375 establishes mechanisms for the development of regional targets for reducing passenger vehicle and light-duty truck GHG emissions. CARB adopted the vehicular GHG emissions reduction targets, in consultation with the metropolitan planning organizations (MPOs), which require a 7 to 8% reduction by 2020 and a 13 to 16% reduction by 2035, for each MPO. SB 375 recognizes the importance of achieving significant GHG reductions by working with cities and counties to change land use patterns and improve transportation alternatives. Through the SB 375 process, MPOs, such as the Kern Council of Governments (KCOG), will work with local jurisdictions to develop sustainable community strategies (SCS) designed to integrate development patterns and the transportation network in a way that reduces GHG emissions while meeting housing needs and other regional planning objectives. While SB 375 does not require local governments to amend their general plans to implement the SCS, it provides incentives for them to do so. KCOG’s current reduction target for per capita vehicular emissions from passenger vehicles and light-duty trucks is 9% by 2020 and 15% by 2035 compared to 2005 (KCOG 2022).

KCOG most recently adopted the 2022 Regional Transportation Plan (RTP), which includes an SCS component in accordance with SB 375. The 2022 RTP is a 24-year blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide the development of the planned multimodal transportation systems in Kern County. The SCS component strives to

reduce polluting tailpipe emissions from passenger vehicle and light-duty truck travel by better coordinating transportation expenditures with forecasted development patterns to help meet CARB GHG targets for the region.

Assembly Bill 32 and Senate Bill 32

In 2006, the California State Legislature adopted AB 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. AB 32 defines GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ (NF₃ has since been added to California HSC Division 25.5) and represents the first enforceable statewide program to limit emissions of these GHGs from all major industries with penalties for noncompliance. The law further requires that reduction measures be technologically feasible and cost effective. Under California HSC Division 25.5, CARB has the primary responsibility for reducing GHG emissions. CARB is required to adopt rules and regulations directing State actions that would achieve GHG emissions reductions equivalent to 1990 statewide levels by 2020.

While acknowledging that national and international actions will be necessary to fully address the issue of global warming, AB 32 lays out a program to inventory and reduce GHG emissions in California and from power generation facilities located outside the state that serve California residents and businesses. CARB adopted a list of discrete early action measures for implementation to reduce GHG emissions in accordance with its responsibility per AB 32. The 1990 baseline emissions inventory for California was also adopted for the 2020 statewide emissions cap.

Subsequent legislation has included SB 32, which expanded upon AB 32 to reduce GHG emissions to 40% below the 1990 levels by 2030; AB 197, which increased CARB’s legislative oversight by adding two legislatively appointed non-voting members to the CARB Board and provided additional protection to disadvantaged communities; SB 350, which increased California’s renewable energy electricity procurement goal and required the state to increase statewide energy efficiency savings by 2030; and SB 100, which established a landmark policy requiring renewable energy and zero-carbon resources to supply 100% of electrical retail sales to end-use customers and 100% of electricity procured to serve state agencies by 2045.

Assembly Bill 1279

The California Climate Crisis Act (AB 1279) establishes the policy of the state to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced at least 85% below 1990 levels. AB 1279 requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality.

California Air Resources Board 2022 Climate Change Scoping Plan

As required by AB 32, CARB developed an initial Climate Change Scoping Plan containing strategies to achieve the 2020 emissions cap in 2008. CARB released updates to the Climate Change Scoping Plan in 2014, 2017, and 2022.

The CARB 2022 Scoping Plan for Achieving Carbon Neutrality lays out a path to achieve targets for carbon neutrality and reduce anthropogenic GHG emissions by 85% below 1990 levels no later than 2045, as directed by AB 1279 (CARB 2022). It outlines an aggressive approach that advocates for compliance with a local GHG reduction strategy (CAP) consistent with CEQA Guidelines Section 15183.5, replacing the CARB 2017 Scoping Plan's numeric per capita threshold. The CARB 2022 Scoping Plan also includes CARB-recommended GHG reductions for each emissions sector of the State's GHG inventory.

The key elements of the CARB 2022 Scoping Plan focus on transportation - the regulations that will impact this sector are adopted and enforced by CARB on vehicle manufacturers and outside the jurisdiction and control of local governments.

Mandatory Greenhouse Gas Reporting Regulation (17 CCR 95100-95158)

Statewide reporting of GHG emissions by major sources is required by AB 32. The Regulation for the Mandatory Reporting of Greenhouse Gas Emissions is applicable to industrial facilities, fuel suppliers, and electricity importers. The Project would not be expected to trigger GHG reporting according to the rule.

Cap-and-Trade Program (17 CCR 95800 to 96022)

On October 20, 2011, CARB approved the California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Program) as part of the AB 32 implementation measures. The final regulation order was updated in 2018 and became effective as of April 1, 2019.

Cap-and-trade is a market-based regulation that is designed to reduce GHGs from multiple sources. Cap-and-trade sets a firm limit, or cap, on GHG emissions from all sources in the Cap-and-Trade Program which declines approximately 3% each year. In the market, a price on carbon is established for GHGs. Trading and market forces create incentives to reduce GHGs below allowable levels through investments in technological innovation in clean technologies. Covered entities that emit more than 25,000 MT CO₂e per year must comply with the Cap-and-Trade Program. The Project would not be expected to directly trigger participation in the Cap-and-Trade Program.

The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from the combustion of other fossil fuels not directly covered at large sources, whether refined in-state or imported.

Short-Lived Climate Pollutants – Senate Bill 605 and Senate Bill 1383

Short-lived climate pollutants (SLCP) (that is, black carbon, fluorinated gases, and CH₄) are powerful climate forcers that remain in the atmosphere for a much shorter period of time than longer-lived climate pollutants. Their relative potency, when measured in terms of how they heat

the atmosphere, can be tens, hundreds, or even thousands of times greater than that of CO₂. The impacts of SLCP are especially strong over the short term. Reducing these emissions can make an immediate beneficial impact on climate change.

SLCP emissions reductions will support achieving AB 32 and SB 32 GHG emission reduction targets. SB 605 directed CARB, in coordination with other State agencies and local air districts, to develop a comprehensive SLCP reduction strategy, and SB 1383 directed CARB to approve and begin implementing this strategy. This legislation also set statewide emissions reduction targets specifying a 40% reduction in CH₄, a 40% reduction in HFCs, and a 50% reduction in anthropogenic black carbon below 2013 levels by 2030. The bill also established specific targets for reducing organic waste in landfills and provided specific direction for CH₄ emissions reductions from dairy and livestock operations.

The SLCP Reduction Strategy, approved by the Board in March 2017, lays out a range of options to reduce SLCP emissions in California, including regulations, incentives, and other market-supporting activities. The SLCP Strategy also informed the CARB 2022 Scoping Plan.

Assembly Bill 1493 Pavley Regulations and Fuel Efficiency Standards

Enacted on July 22, 2002, AB 1493, also known as the Pavley Fuel Efficiency Standards, required CARB to develop and adopt regulations to reduce GHGs emissions from passenger vehicles and light duty trucks. Under this legislation, CARB adopted regulations to reduce GHG emissions from non-commercial passenger vehicles (cars and light-duty trucks) in 2004. A co-benefit of the Pavley standards is an improvement in fuel efficiency and consequently a reduction in fuel consumption.

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and Other Criteria Pollutants from In-Use Heavy-Duty Diesel-Fueled Vehicles

In 2004, CARB adopted the Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling to reduce public exposure to diesel particulate matter emissions (Title 13 CCR Section 2485). The measure applies to diesel-fueled commercial vehicles with gross vehicle weight ratings greater than 10,000 pounds that are licensed to operate on highways, regardless of where they are registered. This measure does not allow diesel-fueled commercial vehicles to idle for more than five minutes at any given location. While the goal of this measure is primarily to reduce public health impacts from diesel emissions, compliance with the regulation also results in energy savings in the form of reduced fuel consumption from unnecessary idling.

Advanced Clean Cars Program and Zero-Emission Vehicles

In 2012, EO B-16-2012 was issued, which called for the increased penetration of zero-emission vehicles (ZEVs) into California's vehicle fleet in order to help California achieve a reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. ZEVs include plug-in electric vehicles, such as battery electric vehicles, plug-in hybrid electric vehicles, and hydrogen fuel cell electric vehicles. In furtherance of that statewide target for the transportation sector, the EO also required CARB, the California Energy Commission (CEC), and the California Public Utilities Commission to establish benchmarks that will: (1) allow over 1.5 million ZEVs to

be on California roadways by 2025, and (2) provide the State's residents with easy access to ZEV infrastructure.

In 2012, CARB approved the Advanced Clean Cars Program, a new emissions-control program for model years 2015–2025. The program combined the control of smog, soot, and GHGs with requirements that about 15% of new cars sold in California in 2025 be plug-in hybrid, battery electric, or fuel cell vehicles.

In 2018, EO B-48-18 was issued, which served to launch an eight-year initiative to accelerate the sale of ZEVs through a mix of rebate programs and infrastructure improvements. The EO also set a new ZEV target of five million EVs in California by 2030 and provided funding for multiple state agencies, including the CEC (in order to increase charging infrastructure) and CARB (in order to provide rebates for the purchase of new ZEVs and incentives for low-income customers).

In 2022, CARB approved the Advanced Clean Cars II rule, which codified the goals set out in EO N-79-20 and established a year-by-year roadmap such that by 2035, 100% of new cars and light trucks sold in California will be ZEVs. Under this regulation, automakers are required to accelerate deliveries of zero-emission light-duty vehicles, beginning with model year 2026. CARB estimates that the regulation would reduce GHG emissions from light-duty vehicles by 50% by 2040, and that from 2026 to 2040, GHG emissions would be reduced by a cumulative 395 MMT.

Tractor-Trailer Greenhouse Gas Regulation

In 2008, CARB adopted the Tractor-Trailer Greenhouse Gas Regulation requiring covered tractors and trailers to either be EPA SmartWay certified or retrofitted with SmartWay verified technologies. The regulation applies primarily to owners and drivers of 50-foot or longer box-type trailers, including both dry-van and refrigerated-van trailers, and owners and drivers of the HD tractors that pull them on California highways. These owners are responsible for replacing or retrofitting their affected vehicles with compliant aerodynamic technologies and low-rolling resistance tires.

Phase 1 and 2 Heavy-Duty Vehicle Greenhouse Gas Standards

In 2013, CARB adopted California Phase 1 GHG regulations that were substantially identical to the federal Phase 1 regulations. This provided California the authority to certify new California-certified engines and vehicles to the Phase 1 standards, as well as enforce them. CARB recognized that a second phase of GHG standards was needed to offset projected vehicle miles traveled (VMT) growth and keep heavy-duty truck GHG emissions declining. CARB staff worked closely with the EPA and NHTSA on the development of Phase 2 GHG standards.

In 2018, California aligned with the federal Phase 2 standards in structure, timing, and stringency, but with some minor California differences. This allowed manufacturers to continue building a single fleet of vehicles and engines for the U.S. market.

California Green Building Standards Code

California Code of Regulations (CCR) Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for residential, commercial, and school buildings that went into effect on August 1, 2009, and is administered by the California Building Standards Commission.

CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2022 California Green Building Code Standards that became effective on January 1, 2023. The CEC anticipates that the 2022 energy code will provide \$1.5 billion in consumer benefits and reduce GHG emissions by 10 MMT (CEC 2021). The Project would be required to comply with the applicable standards in place at the time plan check submittals are made.

Warehouse Projects: Best Practices and Mitigation Measures to Comply with CEQA

There are several resources outlining Best Management Practices for warehouses, including the California Office of the Attorney General Guidance for Best Practices to comply with CEQA (California Office of the Attorney General 2022) and the CARB Concept Paper for the Freight Handbook (CARB 2019). Both guidance documents provide suggestions for mitigation measures, commitments to investments in zero-emission infrastructure at the project design stage; deployment of zero-emission technologies, and the incorporation of contractual language requiring tenants to utilize zero-emission technologies to the maximum extent possible.

Design features and best management strategies to minimize and reduce GHG emissions from a project include:

- Provisions for all ZEV material handling equipment (for example, forklifts and pallet jacks).
- Restrictions to dry storage, with provisions for Best Management Practices and mitigation measures should a future tenant utilize cold storage.
- Use of compliant low GWP refrigerants.
- Rooftop Solar Photovoltaic System With Battery Storage (Title 24 Part 6 §140.10(a)).
- Heat Pump for Space Conditioning in Single-Zoned Office Spaces (Title 24 Part 6 §140.4(a).2).
- Electrical infrastructure to support ZEV material handling equipment.
- Electrical Infrastructure ready to support future ZEV medium heavy-duty trucks and heavy heavy-duty trucks. (California Building Standards Code 5.106.5.4.1 Electric Vehicle Charging Readiness Requirements for Warehouses with Planned Off-street Loading Spaces).
- Water efficient landscaping.
- Low-flow water fixtures.

- Energy efficient light-emitting diode lighting.

Regional

Kern Council of Governments – 2022 Regional Transportation Plan/Sustainable Communities Strategy

KCOG is the designated RTP Agency and MPO for Kern County. In that capacity, KCOG develops air quality projections based on population projections in conjunction with current general plan designations and estimated VMT as well as the current RTP and the federal transportation plan for Kern County.

The latest RTP is the 2022 RTP, a 24-year blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide the development of the planned multimodal transportation systems in Kern County (KCOG 2022). The 2022 RTP includes the SCS required by California's Sustainable Communities and Climate Protection Act of SB 375. The 2022 SCS includes land use planning strategies and policies to reduce air emissions from passenger and light-duty truck travel by better coordinating transportation expenditures with forecasted development patterns in order to meet the GHG emissions reduction target for the region by achieving a 9% reduction in per capita transportation GHG emissions by 2020 and a 15% reduction in per capita transportation emissions by 2035 compared to the 2005 level (KCOG 2022).

Local

San Joaquin Valley Air Pollution Control District

The Project area is located within Kern County's portion of the SJVAB. Kern County is included among the eight counties that comprise the SJVAPCD. The SJVAPCD acts as the regulatory agency for air pollution control in the SJVAB and is the local agency empowered to regulate emissions for the Project area. The SJVAPCD is a CEQA Trustee Agency for the Project.

In August 2008, the SJVAPCD adopted its Climate Change Action Plan. The Climate Change Action Plan directed the SJVAPCD to develop guidance to assist CEQA lead agencies, project proponents, permit applicants, and interested parties in assessing and reducing the impacts of project GHG emissions on global climate change (SJVAPCD 2008).

On December 17, 2009, the SJVAPCD adopted Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA (SJVAPCD 2009), which outlined the SJVAPCD's methodology for assessing a project's significance for GHGs under CEQA. The following criteria were outlined in the document to determine whether a project could have a significant impact:

- Projects determined to be exempt from the requirements of CEQA would be determined to have a less than significant individual and cumulative impact on GHG emissions and would not require further environmental review, including analysis of project-specific GHG emissions. Projects exempt under CEQA would be evaluated consistent with established

rules and regulations governing project approval and would not be required to implement Best Performance Standards (BPS).

- Projects complying with an approved GHG emission reduction plan or GHG mitigation program that avoids or substantially reduces GHG emissions within the geographic area in which the project is located would be determined to have a less than significant individual and cumulative impact for GHG emissions. Such plans or programs must be specified in law or approved by the lead agency with jurisdiction over the affected resource and supported by a CEQA-compliant environmental review document adopted by the lead agency. Projects complying with an approved GHG emission reduction plan or GHG mitigation program would not be required to implement BPS.
- Projects implementing BPS would not require quantification of project-specific GHG emissions. Consistent with CEQA Guidelines, such projects would be determined to have a less than significant individual and cumulative impact on GHG emissions.
- Projects not implementing BPS would require quantification of project-specific GHG emissions and demonstration that project-specific GHG emissions would be reduced or mitigated by at least 29%, compared to business as usual (BAU), including GHG emission reductions achieved since the 2002–2004 baseline period. Projects achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.
- Notwithstanding any of the above provisions, projects requiring preparation of an EIR for any other reason would require quantification of project-specific GHG emissions. Projects implementing BPS or achieving at least a 29% GHG emission reduction compared to BAU would be determined to have a less than significant individual and cumulative impact for GHG.

The SJVAPCD determined BAU and baseline emissions have been established based on the years 2002–2004 and 2020, respectively. The 2020 projected baseline has passed, and at this time, no new guidance has been approved for determining BAU and projected baseline for the next target year. Therefore, the 29% reduction from BAU cannot be applied to the project to determine significance. Additionally, a BPS threshold has not been established.

Metropolitan Bakersfield General Plan

Kern County and the City of Bakersfield jointly prepared and separately adopted a general plan for the metropolitan area of Bakersfield, which includes the Project area. The GHG-related goals, policies, and implementation measures in the Metropolitan Bakersfield General Plan (MBGP) applicable to the Project are provided below. The MBGP contains additional policies, goals, and implementation measures that are more general in nature and not specific to development, such as the Project. These measures are not listed below, but as stated in Chapter 2, *Introduction*, all policies, goals, and implementation measures in the MBGP are incorporated by reference.

Chapter 5: Conservation/Air Quality

Goals

Goal 1. Promote air quality that is compatible with health, well-being, and enjoyment of life by controlling point sources and minimizing vehicular trips to reduce air pollutants.

Goal 2. Continue working toward attainment of Federal, State and Local standards as enforced by the San Joaquin Valley Unified Air Pollution Control District.

Goal 3. Reduce the amount of vehicular emissions in the planning area.

Policies

Policy 2. Encourage land uses and land use practices which do not contribute significantly to air quality degradation.

Policy 4. Consider air pollution impacts when evaluating discretionary permits for land use proposals. Considerations should include:

- Alternative access routes to reduce traffic congestion.
- Development phasing to match road capacities.
- Buffers including increased vegetation to increase emission dispersion and reduce impacts of gaseous or particulate matter on sensitive uses.

Policy 6. Participate in alternative fuel programs.

Policy 10. Implement the Transportation System Management Program (July 1984) for Metropolitan Bakersfield to improve traffic flow, reduce vehicle trips, and increase street capacity.

Policy 12. Encourage the use of mass transit, carpooling and other transportation options to reduce vehicle miles traveled.

Policy 13. Consider establishing priority parking areas for carpoolers in projects with relatively large numbers of employees to reduce vehicle miles traveled and improve air quality.

Policy 14. Establish park and ride facilities to encourage carpooling and the use of mass transit.

Policy 15. Promote the use of bicycles by providing attractive bicycle paths and requiring provision of storage facilities in commercial and industrial projects.

Policy 18. Encourage walking for short distance trips through the creation of pedestrian friendly sidewalks and street crossings.

Policy 19. Promote a pattern of land uses which locates residential uses in close proximity to employment and commercial services to minimize vehicular travel.

Policy 22. Require the provision of secure, convenient bike storage racks at shopping centers, office buildings, and other places of employment in the Bakersfield Metropolitan area.

Policy 23. Encourage the provision of shower and locker facilities by employers, for employees who bicycle or jog to work.

Policy 25. Require design of parking structures and ramps to provide adequate off- street storage for entering vehicles to minimize on-street congestion and avoid internal backup and idling of vehicles.

Policy 29. Encourage the use of alternative fuel and low or zero-emission vehicles.

Implementation Measures

Measure 5. Expand the use of alternative fuel and low or zero-emission vehicles in the metropolitan area for public and private use to achieve 10 percent usage.

Measure 6. Create the private and public infrastructure necessary to support alternative fuel vehicles.

4.8.4 Impacts and Mitigation Measures

This section describes the methodology used in conducting the CEQA impact analysis for GHG emissions; the thresholds of significance used in assessing impacts to GHG emissions; and the assessment of impacts to GHG emissions and global climate change, including relevant mitigation measures.

Methodology

This analysis addresses the Project's potential GHG impacts during construction and operation. Detailed Project data and assumptions, as well as model inputs, and the resulting outputs, are provided in the *Airport Drive Warehouse Greenhouse Gas Analysis* prepared for the Project (Appendix B.3). Potential GHG impacts associated with the Project were analyzed according to CEQA significance criteria described in the Thresholds of Significance section, below.

As stated previously, climate change is a cumulative and global issue causing global impacts. Thus, the study area for climate change and the impact analysis of GHG emissions is broad because climate change is influenced by global emissions and their associated effects. Those effects of climate change can also have localized impacts on resources and ecosystems in California. Despite climate change being a global issue, CEQA only requires that an EIR address indirect impacts that are not speculative.

Note that analytical tools have not been developed that can determine the effect of worldwide global warming from a particular project-specific increase in GHG emissions, or the effect of global GHG emissions on the climate at a particular location.

Modeling and Assumptions

California Emissions Estimator Model

In May 2022, the SJVAPCD, in conjunction with the California Air Pollution Control Officers Association and other California air districts, released the latest version of the California Emissions Estimator Model (CalEEMod): Version 2022.1. The purpose of this model is to calculate construction-source and operational-source criteria pollutant and GHG emissions from direct and indirect sources, as well as quantify applicable air quality and GHG reductions achieved from mitigation measures. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water, refrigerants, stationary, on-site cargo equipment, and transport refrigeration units (TRU) emissions.

The latest version of CalEEMod was used to determine the Project's anticipated GHG emissions. Outputs from the model runs are provided in Appendix B.3 of this Draft EIR.

Construction

Short-term emissions are primarily from the construction phase of a project. CalEEMod Version 2022.1.1.21 was used to estimate emissions from site preparation, grading, building construction, paving, and architectural coating activities. Construction of the Project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road vendor trucks, and worker vehicles.

Construction equipment information and count were provided by the Project proponent and supplemented with default CalEEMod equipment lists for the Project's land use type and development intensity for each phase. Construction of the Project was modeled in CalEEMod assuming 738,500 square feet of Unrefrigerated Warehouse-No Rail space and 184,600 square feet of Refrigerated Warehouse-No Rail land space.

Construction emissions were estimated under the assumption that construction commenced in January 2024. The dates entered into the CalEEMod program represent worst-case emissions as construction equipment technology and emissions improve over time; therefore, all estimated emission totals are conservative and reflect a reasonable and legally sufficient estimate of potential impacts. All construction equipment assumed activity levels of up to 8 hours per day for each piece of equipment. Additionally, vendor trips were assumed for site prep, grading, and paving phases based on the length of the phase.

Operation

Long-term operational emissions associated with the Project were also calculated using CalEEMod Version 2022.1.1.21. During long-term operation of the Project, primary GHG emissions sources would include area sources; energy sources; mobile sources; water supply, treatment, and distribution; solid waste; refrigerants; emergency fire pumps; microturbines; on-site cargo equipment, and TRUs.

Operation of the Project was modeled in CalEEMod assuming 738,500 square feet of Unrefrigerated Warehouse-No Rail space and 184,600 square feet of Refrigerated Warehouse-No Rail land space. Additionally, the User Defined Industrial land use was used to separately model emissions that would occur as a result of Project truck trips. Passenger vehicle truck trips, as well as all other emission sources, were modeled under the Unrefrigerated Warehouse-No Rail and Refrigerated Warehouse-No Rail land uses.

The following sections provide a description of the operational activities included in each source and the methodology and assumptions used to calculate operational emissions for the Project.

Area Sources

Landscape maintenance equipment would generate area source emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shredders/grinders, blowers, trimmers, chainsaws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

Energy Sources

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO₂ and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions.

Mobile Sources

Project-related mobile source GHG emissions derive primarily from 1,430 vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Traffic Impact and Vehicle Miles Traveled (VMT) Analysis Report* (located in Appendix J of this Draft EIR) were utilized in this analysis.

To determine emissions from passenger cars, CalEEMod defaults were utilized for trip length and trip purpose for the proposed uses. For the proposed industrial uses, it is important to note that although the *Traffic Impact and Vehicle Miles Traveled (VMT) Analysis Report* does not break down passenger cars by type, this analysis assumes that passenger cars include the Light-Duty-Auto (LDA), Light Duty Trucks (LDT1 and LDT2), medium-duty-vehicles (MDV), and motorcycle vehicle types. The Project-specific passenger car fleet mix used in this analysis is based on a proportional split utilizing the default CalEEMod percentages assigned to LDA, LDT1, LDT2, and MDV vehicle types.

Vehicle trip lengths for off-site truck trips were based on an average travel distance of 65 miles per one-way trip and an assumption of 100% primary trips. This truck trip length was calculated based on survey data derived from Fresno Council of Government's *Report for San Joaquin Valley I-5/SR-99 Good Movement Corridor Study* (Cambridge Systematics, Inc. 2017) to account for truck travel that would occur within the SJVAB. The Project-specific truck fleet mix used in this analysis

is based on the number of trips generated by each truck type (LHDT1, LHDT2, medium heavy-duty truck, and heavy heavy-duty truck) relative to the total number of truck trips. The truck fleet mix is based on the mix of 2-, 3-, and 4-axle trucks presented in the *Traffic Impact and Vehicle Miles Traveled (VMT) Analysis Report*.

Emergency Fire Pumps

The Project was conservatively assumed to include the installation of two 300-horsepower diesel-powered emergency generators/fire pumps. The emergency generators/fire pumps were estimated to operate for up to 1 hour per day, 1 day per week for up to 50 hours per year for maintenance and testing purposes. Emissions associated with the two stationary emergency diesel-powered emergency generators/fire pumps were calculated using CalEEMod.

On-Site Cargo Handling Equipment

It is common for industrial buildings to require the operation of exterior cargo handling equipment in the building's truck court areas. For this Project, on-site modeled operational equipment includes up to two 175 horsepower, natural gas-powered cargo handling equipment – port tractors operating 4 hours a day for 365 days of the year.

Microturbines

The Project was assumed to include two natural gas-powered microturbines rated to provide 1,000 kilowatts of electrical output each. Other than operation for maintenance and testing purposes (up to 50 hours per year each), the microturbines would be operated for emergency use only. GHG emissions were calculated based on emission factors obtained from the EPA's AP-42, Chapter 3.1 (EPA 2000).

Transport Refrigeration Units

In order to account for the possibility of refrigerated uses, trucks associated with the cold storage land use are assumed to also have TRUs. Therefore, for modeling purposes, 51 one-way truck trips have the potential to include TRUs. TRUs are accounted for during on-site and off-site travel. The TRU calculations are based on the EMFAC Off-road Emissions, developed by the CARB. EMFAC does not provide emission rates per hour or mile as with the on-road emission model and only provides emission inventories. Emission results are produced in tons per day while all activity, fuel consumption, and horsepower hours were reported at annual levels. The emission inventory is based on specific assumptions including the average horsepower rating of specific types of equipment and the hours of operation annually. These assumptions are not always consistent with assumptions used in the modeling of Project-level emissions. Therefore, the emissions inventory was converted into emission rates to accurately calculate emissions from TRU operations associated with Project-level details. This was accomplished by converting the annual horsepower hours to daily operational characteristics and converting the daily emission levels into hourly emission rates based on the total emission of each criterion pollutant by equipment type and the average daily hours of operation.

Water Supply, Treatment, and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat, and distribute water and wastewater. The amount of electricity required to convey, treat, and distribute water depends on the volume of water as well as the sources of the water. Unless otherwise noted, CalEEMod default parameters were used.

Solid Waste

Industrial land uses will result in the generation and disposal of solid waste. A percentage of this waste will be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted will be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the Project were calculated by CalEEMod using default parameters.

Refrigerants

Air conditioning equipment associated with the building is anticipated to generate GHG emissions. CalEEMod automatically generates a default air conditioning and refrigeration equipment inventory for each project land use subtype based on industry data from the EPA. CalEEMod quantifies refrigerant emissions from leaks during regular operation and routine servicing over the equipment lifetime and then derives average annual emissions from the lifetime estimate. Note that CalEEMod does not quantify emissions from the disposal of refrigeration and air conditioning equipment at the end of its lifetime. Per 17 CCR 95371, new facilities with refrigeration equipment containing more than 50 pounds of refrigerant are prohibited from utilizing refrigerants with a GWP of 150 or greater as of January 1, 2022. GHG emissions associated with refrigerants were calculated by CalEEMod using default parameters.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist, following the “Environmental Checklist Form,” Appendix G to the Statewide *CEQA Guidelines* as amended by the California Natural Resources Agency and effective on December 28, 2018 (14 CCR 15000, et seq.), state that a project would have significant impacts on GHG emissions if it would:

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

The adopted *CEQA Guidelines* provide regulatory guidance on the analysis and mitigation of GHG emissions in CEQA documents, while giving lead agencies the discretion to set quantitative or qualitative thresholds for the assessment and mitigation of GHG and global climate change impacts.

Additionally, Section 15064.4(b) of the *CEQA Guidelines* states that the lead agency may take into account the following considerations in addressing the significance of impacts resulting from GHG emissions:

- **Consideration 1:** The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
- **Consideration 2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration 3:** The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (see Section 15183.5(b)). Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of GHG emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project. In determining the significance of impacts, the lead agency may consider a project's consistency with the State's long-term climate goals or strategies, provided that substantial evidence supports the agency's analysis of how those goals or strategies address the project's incremental contribution to climate change and its conclusion that the project's incremental contribution is not cumulatively considerable.

A quantitative analysis was prepared for the Project to determine the extent to which it may increase or reduce GHG emissions as compared to the existing environmental setting to fulfill Consideration 1; however, this analysis was completed for informational purposes only.

For Consideration 2, although SJVAPCD has implemented a tiered approach for determining the significance of GHG emissions, in light of *Center for Biological Diversity v. California Department of Fish and Wildlife* and the requirements of SB 32, the quantitative threshold presented in the CAP is outdated and no longer appropriate for determining the significance of project-related GHG emissions. Additionally, because SJVAPCD's BAU threshold of 29% was developed for consistency with AB 32 2020 target reductions, this approach is no longer appropriate. Because SJVAPCD has not developed new inventories or reduction targets aligned with 2030 SB 32 GHG reductions, the use of SJVAPCD thresholds under Consideration 2 would not be appropriate and were not applied in this analysis.

Consideration 3 relies on a qualitative evaluation of the Project's consistency with state and local regulations adopted to reduce or mitigate GHG emissions. In the absence of a quantified significance threshold for GHG emissions, it is presumed that a project found to be consistent with the adopted implementation of the CARB 2022 Scoping Plan and progress toward 2030 goals would have a less than significant impact with regard to GHG emissions.

Project Impacts

As discussed previously, climate change impacts are inherently global and cumulative, and not project-specific. The SJVAPCD's March 2015 Guidance for Assessing and Mitigating Air Quality Impacts observes that:

It is widely recognized that no single project could generate sufficient GHG emissions to noticeably change global climate temperature. However, the combination of GHG emissions from past, present and future projects could contribute substantially to global climate change. Thus, project-specific GHG emissions should be evaluated in terms of whether or not they would result in a cumulatively significant impact on global climate change (SJVAPCD 2015, Section 8.9.) (SJVAPCD 2015).

Impact 4.8-1: The Project Would Generate Greenhouse Gas Emissions, Either Directly or Indirectly, that may have a Significant Impact on the Environment.

GHG Emissions from the Project

The Project would generate GHG emissions during construction and operational activities. Construction of the Project would result in the temporary generation of GHG emissions associated with the use of off-road construction equipment, on-road vendor trucks, and worker vehicles as part of site preparation, grading, building construction, paving, and architectural coating activities. For purposes of analysis, construction of the Project was expected to commence in January 2024, and last through December 2025. The construction schedule utilized in the analysis represents a “worst-case” analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent. The estimated GHG emissions from construction activities associated with the Project are shown in **Table 4.8-1**.

The SJVAPCD and Kern County have not adopted thresholds that would apply to Project-generated construction emissions and the SJVAPCD does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, including the South Coast Air Quality Management District, have concluded that construction emissions should be considered since they may remain in the atmosphere for years after construction is complete. The total emissions generated from construction were therefore amortized over the life of the development (30 years) and this annualized value was added to the operational emissions. Because there is no GHG threshold for construction-generated GHGs, the evaluation of significance is discussed in the analysis of operational GHG emissions.

Table 4.8-1: Estimated Construction GHG Emissions

Year	Emissions (Metric Tonnes per Year)				
	CO ₂	CH ₄	N ₂ O	Refrigerants	Total CO ₂ e
2024	905.00	0.03	0.03	0.49	917.00
2025	966.00	0.03	0.06	0.92	985.00
Total GHG Emissions	1,871.00	0.06	0.09	1.41	1,902.00
Amortized Construction Emissions	62.37	0.00	0.00	0.05	63.40

Source: Airport Drive Warehouse Greenhouse Gas Analysis (see Appendix B.3 of this Draft EIR)

Key: CH₄ = methane; CO₂ = carbon dioxide; CO₂e carbon dioxide equivalent; GHG = greenhouse gas; N₂O = nitrous oxide

Long-term operation of the Project would generate GHG emissions from area sources, energy use, mobile sources, water use and conveyance, waste generation, refrigerant use, emergency fire pumps, microturbines, on-site cargo equipment, and TRUs. The estimated GHG emissions from operational activities associated with the Project are shown in **Table 4.8-2**.

Table 4.8-2: Estimated Unmitigated Operational GHG Emissions

Emission Source	Emissions (Metric Tones per Year)				
	CO ₂	CH ₄	N ₂ O	Refrigerants	Total CO ₂ e
Annual Construction-Related Emissions Amortized Over 30 Years	62.37	0.00	0.00	0.05	63.40
Mobile Source	10,616.0	0.13	1.46	14.40	11,068.00
Area Source	13.50	0.00	0.00	0.00	13.50
Energy Source	1,470.00	0.22	0.02	0.00	1,483.00
Water Source	147.00	6.96	0.17	0.00	370.00
Waste Source	77.40	7.74	0.00	0.00	271.00
Refrigerants	0.00	0.00	0.00	31.2	31.20
Emergency Fire Pumps	11.40	0.00	0.00	0.00	11.50
Microturbines	56.88	0.00	0.00	0.00	57.43
On-Site Cargo Equipment	0.00	0.00	0.00	0.00	104.44
TRU Source	0.00	0.00	0.00	0.00	500.28
Total Project CO₂e (All Sources)	13,973.75				

Source: Airport Drive Warehouse Greenhouse Gas Analysis (see Appendix B.3 of this Draft EIR)

Key: CH₄ = methane; CO₂ = carbon dioxide; CO₂e carbon dioxide equivalent; GHG = greenhouse gas; N₂O = nitrous oxide; TRU = transport refrigeration unit

As shown in **Table 4.8-1**, the Project's total construction GHG emissions would be 1,902 Metric Tons of CO₂ emissions (MT CO₂e). shows that the Project's total GHG emissions, including operational emissions and annualized construction emissions, would be 13,974 MT CO₂e per year. Mobile sources are the largest contributor to Project GHG emissions, followed by energy use. As there are no applicable GHG emission thresholds, emissions are presented for informational purposes only.

Mitigation Measures identified for the Project would further reduce GHG emissions. The Project would use electric-powered off-road equipment and target a construction waste diversion rate of 80% as part of **Mitigation Measure MM 4.8-1** and would provide electrical hookups for TRUs as part of **Mitigation Measure MM 4.8-2**. **Mitigation Measure MM 4.3-3** (Section 4.3, *Air Quality*), aimed at reducing air pollutant emissions, would require proper equipment maintenance, set equipment use, and idling limits, and require the use of Tier 4 engines where available. **Mitigation Measure MM 4.3-5** (Section 4.3, *Air Quality*) includes a commitment to fully mitigate construction and operations criteria air emissions of project implementation for project vehicles and other mobile sources. **Mitigation Measures MM 4.6-1** and **MM 4.6-2** (see Section 4.6, *Energy*) require the incorporation of energy-efficient building design standards and CALGreen Standards into Project design and operations. **Mitigation Measure MM 4.17-3** (see Section 4.17, *Transportation and Traffic*) requires the preparation of a Transportation Demand Management program to reduce VMT associated with employee trips. Quantitative reductions associated with many of these measures are not available within the CalEEMod database, therefore emissions estimated for the Project are conservative.

Best Management Practices for Warehouses

In response to the increase in warehouse development in California, the California Attorney General's Bureau of Environmental Justice published a Memorandum entitled *Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act* (California Office of the Attorney General 2022).

The Memorandum encourages warehouse projects to implement certain best practices and mitigation measures including those related to community engagement, siting and design considerations, and air quality and GHG emissions. As demonstrated below, a vast majority of best practices have since become required by law or otherwise implemented as part of the project's Air Quality, GHG Emissions, and Transportation mitigation measures. These measures will be enforced by Kern County and will be incorporated into the Project's Mitigation Monitoring and Reporting Program.

A summary of the measures incorporated into the Project and the Draft EIR is provided below, in **Table 4.8-3**.

Table 4.8-3: Project Incorporation of Warehouse Best Practices

Best Practice Measure	Applicability and Incorporation
Community Engagement	
Posting information in hard copy in public gathering spaces and on a website about the project. The information should include a complete, accurate project description, maps and drawings of the project design, and information about how the public can provide input and be involved in the project approval process. The information should be in a format that is easy to navigate and understand for members of the	Incorporated. The Project's Notice of Preparation was published on November 16, 2023, which includes a complete and accurate project description, maps and drawings of the project design, and information about how the public can provide input and be involved in the project approval process. A public Scoping Meeting was held on December 6, 2023. Notices were mailed to reviewing agencies and to residents and owners within 1,000 feet of the

Best Practice Measure	Applicability and Incorporation
affected community.	Project site. Additionally, notices were available in person at the County and on the County's website.
Providing notice by mail to residents and schools within a certain radius of the project and along transportation corridors to be used by vehicles visiting the project, and by posting a prominent sign on the project site. The notice should include a brief project description and directions for accessing complete information about the project and for providing input on the project.	
Identifying a person to act as a community liaison concerning on-site construction activity and operations, and providing contact information for the community relations officer to the surrounding community.	Incorporated. Pursuant to Mitigation Measure MM 4.3-10, the Project applicant shall establish a construction coordinator who will respond to any local complaint about construction activities, ensure all appropriate construction notices have been made available to the public and all construction signs have been installed, and maintain an ongoing log of all construction-related complaints.
Warehouse Siting and Design Considerations	
Creating physical, structural, and/or vegetative buffers that adequately prevent or substantially reduce pollutant dispersal between warehouses and any areas where sensitive receptors are likely to be present, such as homes, schools, daycare centers, hospitals, community centers, and parks.	Incorporated. Pursuant to Mitigation Measure MM 4.1-3, the Project applicant shall submit a landscape plan that complies with the Kern County Zoning Ordinance requirements in Chapter 19.86–Landscaping. Specifically, the landscape plan requires a 20-foot-wide perimeter buffer along any visible boundary from the Boughton Drive and Airport Drive frontages consisting of ground cover, shrubs, and trees.
Providing adequate areas for on-site parking, on-site queuing, and truck check-in that prevent trucks and other vehicles from parking or idling on public streets.	Incorporated. Project plans have been reviewed by the County for adequate on-site parking and queuing in order to prevent trucks from parking or idling on public streets.
Screening dock doors and on-site areas with significant truck traffic with physical, structural, and/or vegetative barriers that adequately prevent or substantially reduce pollutant dispersal from the facility toward sensitive receptors.	Incorporated. Pursuant to Mitigation Measure MM 4.1-3, the Project applicant shall submit a landscape plan that complies with the Kern County Zoning Ordinance requirements in Chapter 19.86–Landscaping. Specifically, the landscape plan requires a 20-foot-wide perimeter buffer along any visible boundary from the Boughton Drive and Airport Drive frontages consisting of ground cover, shrubs, and trees.
Air Quality and Greenhouse Gas Emissions Analysis and Mitigation	
Requiring off-road construction equipment to be zero-emission, where available, and all diesel-fueled off-road construction equipment, to be equipped with CARB Tier IV-compliant engines or better, and including this requirement in applicable bid documents, purchase orders, and contracts, with successful contractors demonstrating the ability to supply the compliant construction equipment for use prior to any ground-disturbing and construction activities.	Largely incorporated. Pursuant to Mitigation Measure MM 4.3-3, on-road and off-road diesel equipment shall use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines. In addition, Tier 4 engines shall be used on all equipment when available.
Prohibiting off-road diesel-powered equipment	Incorporated. As required by Mitigation Measure

Best Practice Measure	Applicability and Incorporation
from being in the “on” position for more than 10 hours per day.	MM 4.3-3c, construction equipment shall not operate longer than eight cumulative hours per day.
Providing electrical hook ups to the power grid, rather than use of diesel-fueled generators, for electric construction tools, such as saws, drills and compressors, and using electric tools whenever feasible.	Largely Incorporated. As required by Mitigation Measure MM 4.13-4, electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.
Forbidding idling of heavy equipment for more than two minutes.	Largely Incorporated. California Air Resources Board’s Regulation for In-Use Off-Road Diesel Vehicles currently limits idling to no more than five consecutive minutes.
Keeping on-site and furnishing to the lead agency or other regulators upon request, all equipment maintenance records and data sheets, including design specifications and emission control tier classifications.	Incorporated. As required by Mitigation Measure MM 4.3-3a, all equipment shall be maintained in accordance with the manufacturer’s specifications.
Conducting an on-site inspection to verify compliance with construction mitigation and to identify other opportunities to further reduce construction impacts.	Incorporated. Pursuant to Mitigation Measure MM 4.3-3, the Lead Agency shall conduct an on-site inspection to verify compliance with construction mitigation.
Requiring on-site equipment, such as forklifts and yard trucks, to be electric with the necessary electrical charging stations provided.	Incorporated. As required by Mitigation Measure MM 4.8-1a, only electric-powered off-road equipment (for example, forklifts, indoor material handling equipment) shall be utilized on-site for daily warehouse and business operations.
Forbidding trucks from idling for more than two minutes and requiring operators to turn off engines when not in use.	Largely Incorporated. Title 13, California Code of Regulations, Section 2485, currently limits idling of diesel-fueled commercial motor vehicles with gross vehicle weight ratings greater than 10,000 pounds to no more than five consecutive minutes.
Constructing electric truck charging stations proportional to the number of dock doors at the project.	Incorporated. As required by Mitigation Measure MM 4.6-2, in addition to the number of electric vehicle capable spaces provided with electric vehicle supply equipment required by the current California Green Building Standards, the Project shall provide an additional 2% of electrical vehicle capable spaces with electrical vehicle supply equipment.
Constructing electric light-duty vehicle charging stations proportional to the number of parking spaces at the project.	
Unless the owner of the facility records a covenant on the title of the underlying property ensuring that the property cannot be used to provide refrigerated warehouse space, constructing electric plugs for electric transport refrigeration units at every dock door and requiring truck operators with transport refrigeration units to use the electric plugs when at loading docks.	Incorporated. Mitigation Measure MM 4.8-1 requires all TRUs entering the Project site be plug-in capable and electrical hookups to be provided at the loading bays for tenants requiring cold storage.
Installing solar photovoltaic systems on the project site of a specified electrical generation capacity, such as equal to the building’s projected energy needs.	Incorporated. The 2022 Building Energy Efficiency Standards (Energy Code) has solar photovoltaic (PV) system requirements for all newly constructed nonresidential buildings. Pursuant to Energy Code Section 140.10, the required solar PV system is intended to offset the annual electrical consumption of a mixed-fuel building such that it will self-utilize

Best Practice Measure	Applicability and Incorporation
	about 80% of the annual solar PV generation without battery storage, and about 90% with battery storage, over a year.
Improving and maintaining vegetation and tree canopy for residents in and around the project area.	Incorporated. The project would include on-site and off-site landscaping, including trees having a minimum planting height of 6 feet.
Sweeping surrounding streets on a daily basis during construction to remove any construction-related debris and dirt.	Incorporated. Mitigation Measure MM 4.3-2c requires streets adjacent to the Project site to be kept clean, and project-related accumulated silt to be removed.
Directing all lighting at the facility into the interior of the site.	Incorporated. Pursuant to Mitigation Measure MM 4.1-4, all lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas.
Using full cut-off light shields and/or anti-glare lighting.	Incorporated. Pursuant to Mitigation Measure MM 4.1-4, all outdoor lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass onto adjacent properties and roadways. Lenses and bulbs shall not extend below the shields.
Installing climate control in the warehouse facility to promote worker well-being.	Incorporated. Proposed building would be consistent with the requirements of the California Building Code, including installing required climate control and air infiltration.

Key: TRU = Transport Refrigeration Unit; PV = photovoltaic

In addition to the measures specifically related to the Warehouse Projects Best Practices Memorandum above, **Mitigation Measure MM 4.8-1** requires the use of only electric-powered off-road equipment (for example, forklifts, indoor material handling equipment) for daily warehouse operations, tracking and reporting of efforts to meet a construction waste diversion target of 80%, marking of equipment containing more than five pounds of refrigerant for identification, and use of automatic lights where feasible to do so.

Further, as part of **Mitigation Measure MM 4.3-5**, the Project proponent would pay fees to fully offset Project emissions of NO_x, ROG, PM₁₀, and PM_{2.5} to avoid any net increase in these pollutants. The payment would fund SJVAPCD's emission reduction programs. Types of emission reduction projects that have been funded in the past include electrification of stationary internal combustion engines (such as agricultural irrigation pumps), replacing diesel school buses, and replacement of old farm tractors. A full analysis of the SJVAPCD Emission reduction program is found in Appendix B.3. These emission offsets and emission reduction projects would further reduce GHG emissions within SJVAB.

Statewide GHG Reduction Measures

Since GHG emissions from the Project would primarily result from off-site mobile vehicle travel and indirect electricity use, emissions would continue to decline rapidly for future buildout years based on statewide regulations aimed at reducing GHG emissions from these sectors. Strategies

currently being implemented by CARB that may help in reducing the Project's GHG emissions and are summarized in **Table 4.8-4**.

Table 4.8-4: Select CARB GHG Emission Reduction Strategies

Strategy	Description
California Renewables Portfolio Standard	Sets a renewable electricity procurement goal of 60% by 2030 with interim targets of 44% by 2024 and 52% by 2027. Requires renewable energy and zero-carbon electricity system to supply 100% of electric retail sales by 2045.
Low Carbon Fuel Standard	Reduces the carbon intensity of transportation fuels sold in California by establishing performance standards that fuel producers and importers must meet each year beginning in 2011.
Light-Duty Vehicle Emissions Standards	Regulations adopted to reduce GHGs emissions from passenger vehicles and light duty trucks include Pavley Fuel Efficiency Standards, Advanced Clean Cars, and Advanced Clean Cars II.
Zero-Emission Vehicles	The Advanced Clean Cars II rule establishes a year-by-year roadmap such that by 2035, 100% of new cars and light trucks sold in California will be ZEVs.
Diesel Anti-Idling	Limits idling of diesel-fueled commercial vehicles to no more than five minutes at any given location.
Heavy-Duty Vehicle Emission Reduction Measures	Regulations adopted to reduce GHGs emissions from heavy-duty vehicles include the California Phase 1 GHG regulations, California Phase 2 GHG regulations, and Tractor-Trailer GHG Regulation.
Cap-and-Trade Program	Sets a firm limit on covered GHG emissions that decreases each year. GHG emissions associated with electricity consumed in California, whether generated in-state or imported, are covered. The Cap-and-Trade Program also covers fuel suppliers, whether the supplied fuel is refined in-state or imported.

Key: GHG = greenhouse gas; ZEV = zero-emission vehicle

These measures do not apply at the individual project level such as the Project; rather, they are statewide strategies that in some cases have resulted in legislation that would apply to the project but in other cases have not. While future legislation could further reduce the Project's GHG footprint, it would be speculative to try to analyze how unknown and/or currently unadopted future legislation might reduce GHG emissions, especially at the level of an individual project. Therefore, in accordance with *CEQA Guidelines* Section 15145 (which states that if, after a thorough investigation, a lead agency finds that a particular impact is too speculative for evaluation, the agency should note its conclusion and terminate discussion of the impact), the impact of potential future legislation will not be further evaluated in this Draft EIR.

Conclusions

Due to the cumulative and global nature of climate change, without implementation of the mitigation measures, the impact related to the generation of GHG emissions, either directly or indirectly, that may have a significant impact on the environment would be potentially significant.

CEQA Guidelines Section 15130 notes that sometimes the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis. Global climate change is this type of issue. The causes and effects may not be just regional or statewide, they may also be worldwide. Given the uncertainties in identifying, let alone quantifying the impact of any single project on global warming and climate

change; the efforts made to reduce emissions of GHGs from the Project through design; and implementation of **Mitigation Measures MM 4.8-1** through **MM 4.8-3** listed below, **MM 4.3-3** and **MM 4.3-5** in Section 4.3, *Air Quality*, **MM 4.6-1** and **MM 4.6-2** in Section 4.6, *Energy*, and **MM 4.17-3** in Section 4.17, *Transportation and Traffic*; in accordance with *CEQA Guidelines* Section 15130, any further feasible emissions reductions would be accomplished through CARB regulations adopted pursuant to AB 32.

Mitigation Measures Considered and Rejected

The Office of the California Attorney General maintains a website with a list of CEQA mitigation measures for global climate change impacts. The Attorney General has listed some examples of types of mitigation measures that local agencies may consider offsetting or reducing global climate change impacts from a project.

More recently, the Attorney General published the Warehouse Projects Best Practices Memorandum discussed above. The Attorney General ensures that the presented lists are examples and not intended to be exhaustive but instead provide measures and policies that could be undertaken. Moreover, the measures cited may not be appropriate for every project, so the Attorney General suggests that the lead agency should use its own informed judgment in deciding which measures it would analyze, and which measures it would require, for a given project.

As discussed fully in Impacts 4.8-1 and 4.8-2, the Project has implemented all feasible and applicable measures to reduce air quality and GHG emissions. Either through regulatory compliance or mitigation measures, the Project would implement a vast majority of the recommended measures from the Attorney General's Warehouse Projects Best Practices Memorandum, carry out other state-of-the-art efficiency measures, and fully offset Project emissions of NO_x, ROG, PM₁₀, and PM_{2.5} to avoid any net increase in these pollutants. The payment would fund SJVAPCD's emission reduction programs and further reduce GHG emissions within SJVAB.

CEQA does not require the County to utilize achieving net-zero GHG emissions as a significance threshold to evaluate the Project. Moreover, Lead Agencies have the discretion to formulate their own significance thresholds (State *CEQA Guidelines* Section 15064.7(b)). The determination by a lead agency of whether a project may have a significant effect on the environment calls for careful judgment, based to the extent possible, on scientific and factual data (State *CEQA Guidelines* Section 15064(b)(1)). Thus, establishing a single threshold of significance, while desirable in certain instances, may not be possible for every environmental impact, because the significance of an impact may vary with the setting. The final determination of whether a project is significant is within the purview of the County, as lead agency pursuant to Section 15064(b) of the CEQA Guidelines.

Here, the County has chosen to evaluate the Project against applicable State and regional GHG reduction plans, including the CARB 2022 Scoping Plan and KCOG 2022 RTP/SCS. As discussed under Impact 4.8-2, the Project would be consistent with the applicable plans; therefore, impacts would be less than significant, and no additional mitigation would be required.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.3-3 and MM 4.3-5** (Section 4.3, *Air Quality*), **MM 4.6-1 and MM 4.6-2** (Section 4.6, *Energy*), and **MM 4.17-3** (Section 4.17, *Transportation and Traffic*) would be required, and

MM 4.8-1

- a. Prior to issuance of occupancy permits, the project developer shall disclose to all tenants/business entities that only electric-powered off-road equipment (e.g. forklifts, material handling equipment, etc.) shall be utilized for all indoor activities for daily warehouse and business operations and a copy of disclosure documents shall be submitted to the Planning and Natural Resources Department to be kept on file.
- b. Prior to issuance of grading permits, the project construction's General Contractor shall target a construction waste diversion rate of 80 percent. A monthly construction report shall be provided to the County documenting total waste generated, types of waste streams, and total waste recycled.
- c. During operation and to the extent feasible for safe warehouse operations, automatic light switches shall be incorporated into the project.
- d. During operation, any equipment containing greater than five pounds of refrigerant, procured or installed, shall be tagged so that project applicant and tenant can identify and verify all installed equipment.

MM 4.8-2

If tenant/business will utilize cold storage in the project, the project developer shall provide a disclosure to that user that requires all Transport Refrigeration Units (TRUs) entering the project site to be plug-in capable. The building systems shall be upgraded to provide electrical hookups as part of the tenant improvements for any tenant that requires cold storage. The electrical hookups shall be provided at loading bays for truckers to plug in any onboard auxiliary equipment and power refrigeration units while their truck is stopped. A copy of this required disclosure shall be provided to the Planning and Natural Resources Department prior to the issuance of occupancy permit for this specific user.

Level of Significance After Mitigation

With the implementation of **Mitigation Measures MM 4.3-3 and MM 4.3-5** (Section 4.3, *Air Quality*), **MM 4.6-1 and MM 4.6-2** (Section 4.6, *Energy*), **MM 4.8-1, MM 4.8-2 and MM 4.17-3** (Section 4.17, *Transportation and Traffic*), impacts would be less than significant after mitigation.

Impact 4.8-2: Conflict with any Applicable Plan, Policy, or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gas.

The Project regulatory setting (Section 4.8.3, *Regulatory Setting*) describes the applicable plans, policies, and regulations adopted at federal, state, and local levels for the purpose of reducing GHG emissions in Kern County. As discussed above, impacts were evaluated based on whether the project would be consistent with the State's applicable GHG reduction goals, plans, policies, and regulatory requirements as well as other federal, state, and local policies, as provided in the following analyses.

KCOG 2022 RTP/SCS

As discussed above in Section 4.8.3, CARB set KCOG's targets for GHG emissions reductions from passenger vehicles and light-duty trucks at 9% per capita by 2020 and 15% per capita by 2035 as compared to 2005. These reduction targets are reflected in KCOG's 2022 RTP/SCS (KCOG 2022). Because emissions in the transportation sector are closely related to passenger vehicle travel, a mandated reduction essentially requires KCOG to devise a regional plan and a series of strategies that will produce a per capita reduction in passenger vehicle VMT.

To determine whether the Project would conflict with the GHG emissions reduction targets in the KCOG RTP/SCS, the VMT associated with the Project was compared to the KCOG targets. VMT was analyzed as part of the transportation and traffic analysis completed for the project (see *Traffic Impact and Vehicle Miles Traveled (VMT) Analysis Report*, in Appendix J of this Draft EIR), discussed in Section 4.17.4, *Transportation and Traffic, Impacts and Mitigation Measures*. The VMT analysis summarized in Impact 4.17-2 determined that the Project generated home-based work VMT per employee would be less than the significance threshold for both baseline conditions (2020) and future cumulative conditions (2046). Therefore, the Project would be consistent with KCOG's VMT reduction targets and associated GHG emissions reduction targets and would not conflict with the KCOG 2022 RTP/SCS.

CARB 2022 Scoping Plan

The CARB 2022 Scoping Plan describes the approach California will take to meet its AB 32 GHG reduction targets of at least 40% below 1990 emissions by 2030 and at least 85% below 1990 levels by 2045, assesses progress toward the statutory 2030 target, and lays out a path to achieve carbon neutrality no later than 2045. Unlike previous Scoping Plans that separated out individual economic sectors, the CARB 2022 Scoping Plan focuses on the accelerated deployment of clean technology and energy within every sector and approaches decarbonization from two perspectives: (1) managing a phasedown of existing energy sources and technology and (2) ramping up, developing, and deploying alternative clean energy sources and technology over time.

The CARB 2022 Scoping Plan calls for an aggressive reduction of fossil fuels wherever they are currently used in California. That means rapidly moving to zero-emission transportation; phasing out the use of fossil gas for heating homes and buildings; providing communities with sustainable options for walking, biking, and public transit to reduce reliance on cars; and continuing to build out clean, renewable energy generation to displace fossil fuel fired electrical generation.

Successfully achieving the outcomes called for in this Scoping Plan would reduce demand for liquid petroleum by 94% and total fossil fuel by 86% in 2045 relative to 2022.

The CARB 2022 Scoping Plan identifies strategies to reduce California's GHG emissions in support of AB 32. Many of the strategies identified in the Scoping Plan are more programmatic and are not applicable to individual development projects. **Table 4.8-5**, summarizes the Project's consistency with applicable strategies in the CARB 2022 Scoping Plan.

Table 4.8-5: Summary of Project Consistency with CARB 2022 Scoping Plan

Strategies for Achieving Success	Project Consistency
Transportation Sustainability	
Achieve 100% ZEV sales of light-duty vehicles by 2035 and medium- and heavy-duty vehicles by 2040.	Not Applicable. These are statewide measures that apply to vehicle manufacturers. However, the Project would benefit indirectly given that light-duty vehicles, medium heavy trucks and heavy heavy-duty trucks associated with the Project would be compliant with ZEV transition requirements.
Develop a rapid and robust network of ZEV refueling infrastructure to support the needed transition to ZEVs.	Consistent. Infrastructure for the Project would be designed to support the transition to ZEV as per CALGreen Standards. MM 4.6-2 requires electric vehicle capable spaces with electric vehicle supply equipment in excess of the CALGreen requirements.
Accelerate the reduction and replacement of fossil fuel production and consumption in California.	Not Applicable. This action is directed at State agencies. The Project will comply with any applicable regulations developed to reduce fossil fuel consumption in California.
Achieve a per capita VMT reduction of at least 25% below 2019 levels by 2030 and 30% below 2019 levels by 2045.	Consistent. As explained above, based on the Transportation and Traffic analysis prepared for the Project, the Project's VMT would not exceed the VMT per capita target set for KCOG and reflected in the RTP/SCS. As a result, the Project would be consistent with efforts to reduce per capita VMT.
Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen.	Consistent. Off-road construction equipment would utilize renewable diesel in compliance with CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation. On-road diesel trucks would also utilize these fuels consistent with the LCFS.
Clean Electricity Grid	
Per SB 350, double statewide energy efficiency savings in electricity and fossil gas end uses by 2030, through a combination of energy efficiency and fuel substitution actions.	Not applicable. This measure would apply to utilities and not to individual development projects. The Project would benefit indirectly by purchasing electricity from a utility subject to the SB 350 Renewable Mandate and RPS requirements.
Per SB 100 and SB 1020, achieve 90%, 95%, and 100% renewable and zero-carbon retail sales by 2035, 2040, and 2045, respectively.	Not applicable. This measure would apply to utilities and not to individual development projects. The Project would benefit indirectly by purchasing electricity from a utility subject to the SB 100 and RPS requirements.
Construction Equipment: 25% of energy demand electrified by 2030 and 75% electrified by 2045.	Consistent. Construction equipment used for the Project would comply with CARB off-road regulation milestones for electrification and use of renewable

Strategies for Achieving Success	Project Consistency
	fuels. As required by MM 4.13-4 , electric air compressors and similar power tools, rather than diesel equipment, shall be used for construction where feasible. Per MM 4.3-3f , all on-site off-road equipment and on-road vehicles shall meet the CARB engine emission standards or be alternatively fueled equipment, such as compressed natural gas, liquefied natural gas, or electric, as appropriate.
Sustainable Manufacturing and Buildings	
All electric appliances beginning 2026 (residential buildings) and 2029 (commercial buildings), contributing to 6 million heat pumps installed statewide by 2030.	Consistent. The Project will comply with State Building Energy Efficiency Standards, appliance efficiency regulations, and CALGreen Standards in effect at the time building permits are received.
End fossil gas infrastructure expansion for newly constructed buildings.	Consistent. The Project would not require or result in the relocation or construction of new or expanded natural gas facilities.
In 2030s renewable natural gas (RNG) blended in pipeline, ramping up to 2040. Dedicated hydrogen pipelines constructed to serve certain industrial clusters.	Not applicable. This measure applies to natural gas suppliers. The Project would benefit indirectly through receipt of RNG.
Expand use of low GWP refrigerants within buildings.	Consistent. The Project would use low GWP refrigerants consistent with current CARB HFC Regulations. In addition, MM 4.8-1d requires tagging of any equipment containing greater than five pounds of refrigerant.
Carbon Dioxide Removal and Capture – N/A	
Short-Lived Climate Pollutants (Non-Combustion Gases)	
Expand the use of very low- or no-GWP technologies in all HFC end-use sectors, including emerging sectors, like heat pumps for applications other than space conditioning, to maximize the benefits of building decarbonization.	Consistent. The Project would use low GWP refrigerants consistent with current CARB HFC Regulations. In addition, MM 4.8-1d requires tagging of any equipment containing greater than five pounds of refrigerant.
Reduce anthropogenic black carbon by reducing fuel combustion commensurate with state's climate and air quality programs, particularly from reductions in transportation emissions and agricultural equipment emissions.	Consistent. All vehicles associated with the Project would comply with vehicle emission and fuel efficiency standards, resulting in reduced fuel consumption and GHG emissions.

Natural and Working Lands – N/A

It is also important to note that the CARB 2022 Scoping Plan identifies CARB's Cap-and-Trade Program as one of the strategies employed to reduce GHG emissions. The Cap-and-Trade Program places a limit on GHG emissions from the industrial, utility, and transportation fuels sectors. In accordance with SJVAPCD CEQA policy, the CARB's Cap-and-Trade Program is considered to be an adopted Statewide plan for reducing or mitigating GHG emissions, which includes emissions from the transportation fuel and energy sectors. As such, the SJVAPCD considers GHG emissions resulting from the combustion of fuels at the project level, either for energy use or transportation,

to be mitigated under the Cap-and-Trade Program, and therefore would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions.

As the Project would not conflict with either the 2022 RTP/SCS or the CARB 2022 Scoping Plan, there would be a less than significant impact related to a conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. It should be noted that the Project's consistency with the CARB 2022 Scoping Plan also satisfies consistency with AB 32 since the CARB 2022 Scoping Plan is based on the overall targets established by AB 32 and SB 32.

The Project would not have a potentially significant impact related to any conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Implementation of **Mitigation Measures MM 4.8-1** and **MM 4.8-2**, **MM 4.3-3** and **MM 4.3-5** in Section 4.3, *Air Quality*, **MM 4.6-1** and **MM 4.6-2** in Section 4.6, *Energy*, and **MM 4.17-3** in Section 4.17, *Transportation and Traffic* would further reduce GHG impacts, but these measures are not required to reduce **Impact 4.8-2** to a less than significant level.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.3-3** and **MM 4.3-5** (Section 4.3, *Air Quality*), **MM 4.6-1**, **MM 4.6-2** (Section 4.6, *Energy*) **Mitigation Measures MM 4.8-1**, **MM 4.8-2** and **MM 4.17-3** (Section 4.17, *Transportation and Traffic*) would be required.

Level of Significance After Mitigation

With the implementation of **Mitigation Measures MM 4.3-3** and **MM 4.3-5** (Section 4.3, *Air Quality*), **MM 4.6-1**, **MM 4.6-2** (Section 4.6, *Energy*) **Mitigation Measures MM 4.8-1**, **MM 4.8-2** and **MM 4.17-3** (Section 4.17, *Transportation and Traffic*), impacts would be less than significant.

4.8.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Cumulative impacts occur when the incremental effects of a project are significant when combined with similar impacts from other past, present, or reasonably foreseeable projects in a similar geographic area. The geographic scope for cumulative impacts to GHG emissions and global climate change is considered the SJVAB. Cumulative projects considered as part of this cumulative analysis include the project, other cumulative projects identified in Chapter 3, *Project Description*, **Table 3-8** of this Draft EIR, and other past, present, and reasonably foreseeable future projects within the incorporated and unincorporated areas of Kern County. As stated previously, climate change is a cumulative and global issue causing global impacts. Thus, a broad geographic scope of analysis is appropriate because climate change is influenced by global emissions and their associated effects.

Impact 4.8-3: Cumulative Greenhouse Gas Emissions Impacts

Global climate change occurs as a result of global emissions of GHGs. An individual project such as the Project does not have the potential to result in direct and significant global climate change. The *CEQA Guidelines* also emphasize that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (*CEQA Guidelines* Section 15130[f]).

Without the necessary science and analytical tools, it is not possible to assess, with certainty, whether the Project's contribution would be cumulatively considerable within the meaning of *CEQA Guidelines* Sections 15065(a)(3) and 15130. CEQA, however, does note that more severe environmental problems have lower thresholds for determining that a project's contribution to cumulative impacts is significant. Given the position of the legislature in AB 32, which states that global warming poses serious detrimental effects, and the requirements of CEQA for the lead agency to determine that a project does not have a cumulatively considerable contribution, the effect of the Project's total emissions of 13,974 MTCO₂e per year could be considered cumulatively considerable. This determination is based on the lack of clear scientific or other criteria for determining the significance of the Project's contribution to global climate change. This impact is therefore considered cumulatively potentially significant.

As there is no clear scientific or other criteria for determining the significance of the Project's contribution to global climate change, the Project's cumulative impacts would remain significant and unavoidable despite the implementation of the mitigation measures.

CEQA Guidelines Section 15130 notes that sometimes the only feasible mitigation for cumulative impacts may involve the adoption of ordinances or regulations rather than the imposition of conditions on a project-by-project basis. Global climate change is this type of issue. The causes and effects may not be just regional or statewide, they may also be worldwide. Given the uncertainties in identifying, let alone quantifying the impact of any single project on global warming and climate change, and the efforts made to reduce emissions of GHGs from the project through design, in accordance with CEQA Section 15130, any further feasible emissions reductions would be accomplished through CARB regulations adopted pursuant to AB 32.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.3-3** and **MM 4.3-5** (Section 4.3, *Air Quality*), **MM 4.6-1**, **MM 4.6-2** (Section 4.6, *Energy*) **Mitigation Measures MM 4.8-1**, **MM 4.8-2** and **MM 4.17-3** (Section 4.17, *Transportation and Traffic*) would be required.

Level of Significance After Mitigation

Despite the implementation of **Mitigation Measures MM 4.3-3** and **MM 4.3-5** (Section 4.3, *Air Quality*), **MM 4.6-1**, **MM 4.6-2** (Section 4.6, *Energy*) **Mitigation Measures MM 4.8-1**, **MM 4.8-2** and **MM 4.17-3** (Section 4.17, *Transportation and Traffic*), cumulative impacts would be significant and unavoidable.

Section 4.9

Hazards and Hazardous Materials

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Section 4.9

Hazards and Hazardous Materials

4.9.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding hazards and hazardous materials. It also evaluates the IPG Industrial Project's (Project) potential impacts on sensitive receptors that would result from the implementation of the IPG Industrial Project, and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the 2022 Phase 1 Environmental Site Assessment Report prepared by Advanced Environmental Concepts, Inc. (Appendix G).

4.9.2 Environmental Setting

This section discusses the existing conditions related to hazards and hazardous materials in the proposed IPG Industrial Project (the Project) area and describes the environmental setting for hazardous materials and waste, airports, and wildfire hazards. Residences and other sensitive receptors such as schools are also described, as their proximate location to the Project site affects their exposure to the potential hazards described below. A description of the Project site relative to hazards and hazardous materials can also be found below.

Existing Setting

The Project site is located on approximately 49.05 acres, comprised of two privately owned parcels, in the central part of unincorporated Kern County, California. The Project site is approximately 1.7 miles north of the incorporated City of Bakersfield and approximately 3.1 miles east of the incorporated City of Shafter. The site is within the unincorporated community of Oildale, which extends further to the north, east, and west of the Project site. The Project site is situated approximately 1.4 miles northeast of State Route (SR) 99. Regional access to the Project site is provided by SR 99 via Airport Drive. Local access to the Project site is available via Airport Drive and Boughton Drive.

Land uses immediately surrounding the Project site are varied and consist of industrial, commercial, transportation, and residential uses. The residential uses are single- and multi-family residences, mostly east of the Project site with the nearest residence approximately 100 feet directly east. To the north, the Project boundary runs parallel to Boughton Drive with vacant undeveloped land across Boughton Drive and is zoned for light industrial use. To the east, the Project boundary runs parallel to Airport Drive, with a mix of uses across Airport Drive including Derrel's Mini Storage, Park Meadows Apartments, and Fabulous Burgers. To the south is Skyway Drive, where a FedEx Ship Center, Epic Jet Center, and Airman Flight Training are opposite of Skyway Drive. Meadows Field Airport is approximately 0.6 mile west along Hangar Drive.

Historical Property Use

The subject property is undeveloped and vacant; no permanent structures are on the property. According to available historical resources, the subject property had been farmed prior to 1937 into the 1990s, primarily with irrigated cover crops. The property has remained fallow from the 1990s to the present.

The general area has been used historically for agriculture and oil field production starting prior to the 1910s. Nearby offsite properties to the north, west, and east indicate that those properties appear to have been occupied by large crude oil aboveground storage tanks in the former Chevron Tank Farm. The Kern Front and Poso Creek Oil Fields are a short distance north of the general site area. Oil produced from these nearby fields have been historically stored in large surface impoundments throughout the region during production activities. Surrounding property adjoining the site had been planted with irrigated row crops and orchard crops.

Currently, the surrounding area consists of commercial, residential, and industrial development. North of the subject property is asphalt-paved Boughton Drive, followed by undeveloped ground that is similarly designated for industrial use. The south boundary is also undeveloped ground, Hangar Way and a commercial structure and yard. East of the subject property is asphalt-paved Airport Drive; across Airport Drive is a residential neighborhood, drive-thru restaurant, and a mini storage facility. West of the subject property is similar undeveloped property, along with the Meadows Field hangars, AVIS rental car return facility, and other commercial development.

Hazardous Materials and Waste

A hazardous material is any substance that, due to quantity, concentration, or physical or chemical properties, may pose a hazard to human health and the environment. Under Title 22 of the California Code of Regulations (CCR), the term “hazardous substance” refers to both hazardous materials and hazardous wastes. Both are classified according to four properties: (1) toxicity; (2) ignitability; (3) corrosiveness; and (4) reactivity (CCR Title 22, Chapter 11, and Article 3). A hazardous material is defined in CCR, Title 22 as:

A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (CCR, Title 22, Section 66260.10).

Hazardous materials in various forms can cause death; serious injury; long-lasting health effects; and damage to buildings, homes, and other property. Hazards to human health and the environment can occur during production, storage, transportation, use, or disposal of hazardous materials.

California Environmental Protection Agency’s (CalEPA) Department of Toxic Substances Control (DTSC) defines hazardous waste as a waste with properties that make it potentially

dangerous or harmful to human health or the environment. They can be the by-products of manufacturing processes; discarded used materials; or discarded unused commercial products, such as cleaning fluids (solvents) or pesticides. In regulatory terms, a hazardous waste is a waste that exhibits one of the four characteristics of a hazardous waste: ignitability, corrosivity, reactivity, or toxicity. However, materials can be hazardous waste even if they are not specifically listed or do not exhibit any characteristic of a hazardous waste. For example, “used oil” products, which contain materials on California’s M-list (which includes certain wastes known to contain mercury, materials regulated pursuant to the mixture or derived-from rules, and contaminated soil generated from a “clean up”) can also be hazardous wastes.

Recognized Environmental Conditions

The Phase I Environmental Site Assessment (ESA) evaluated the site consistent with the procedures included in ASTM Practice E 1527-13. The purpose of the Phase I ESA was to identify any Recognized Environmental Conditions (RECs) in connection with the Project site. RECs present a material risk of harm to public health or the environment and generally are the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The Phase I ESA additionally identifies Controlled RECs (CRECs), which are defined as a REC resulting from a past release that has been addressed to the satisfaction of the applicable regulatory authority. These hazardous substances are allowed to remain in place and are subject to institutional controls. Lastly, it identifies Historical RECs (HRECs), which are conditions which may have presented a material risk to public health and/or the environment but have now been mitigated to the satisfaction of a regulatory agency at the Project site.

The Phase I ESA did not locate any RECs, CRECs, or HRECs in connection with the Project site (Appendix G). The Phase I ESA identified de minimis conditions in connection with the Project site, which are defined as conditions related to a release that generally do not present a threat to human health or the environment. Additionally, they generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. The de minimis conditions and recommendations in the Phase I ESA are provided below:

- The subject property has a historical agricultural use as irrigated row crop ground from prior to 1937 to the late 1990s. There is the potential that chlorinated pesticide residues exceeding commercial-use Regional Screening Levels may be present.

Since the subject property has been disturbed on a yearly basis by discing for weed abatement for the past approximate 25 years, it was recommended that no further investigation is warranted regarding the former agricultural use of the site.

- In the southeast portion of the subject property, Advanced Environmental Concepts Inc. (AEC) observed both older and newer soil stockpiles that have been dumped onsite; the genesis of the older-dumped material is currently unknown; however, the newer dumped material appears to be derived from construction waste and gardening waste (green waste). In addition, there a few small areas of illegal dumping surrounding the stockpiles of soil that primarily consist of household-related waste.

It was recommended to remove construction debris or material that would be considered “unsuitable” by a geotechnical engineer prior to conducting grading and disposing the inferred non-hazardous waste at an appropriate offsite landfill. It was also recommended to post a “no dumping” sign to deter future illegal dumping.

- A review of historical aerial photographs indicates that the subject property was adjacent to the former location of large aboveground impoundments used for crude oil storage in offsite Section 1 east of Airport Drive. The impoundments were in active use in the open ground east of Airport Drive from at least 1910 through the 1940s and the footprints visible through the early 1990s. Closure of these impoundments typically consisted of pumping out all accessible crude and then pushing the residual crude to the center so that it would dry and then be removed for offsite disposal. However, this mitigation effort did not take into account any crude oil that had previously percolated into the subsurface.

Further investigation was not recommended unless crude oil-related waste is discovered onsite during grading.

Hazardous Materials Transportation

There is one major highway that is within proximity of the Project site: State Route 99. U.S. Route 99, also known as the “Golden State Highway,” is a three-lane highway located approximately 2.3 miles west of the Project site. Additionally, SR 65 is located approximately 2.0 miles west of the Project site. The transportation of hazardous materials within the State of California is subject to various federal, State, and local regulations.

It is illegal to transport explosives or inhalation hazards on any public highway that is not designated for that purpose, unless the use of a highway is required to permit delivery or the loading of such materials (California Vehicle Code, Sections 31602 (b) and 32104(a)). The California Highway Patrol (CHP) designates through routes that are to be used for the transportation of hazardous materials. According to Section 2.5.4 of the Kern County General Plan Circulation Element, SR 99 (approximately 2.3 miles west), and SR 65 (approximately 2.0 miles west) are designated as adopted commercial hazardous materials shipping routes (Kern County 2009).

Airports

The nearest airport to the Project site is the Meadows Field Airport, a public airport located approximately 0.6 mile west of the Project site. The proposed Project is located within the Sphere of Influence (SOI) of the Meadows Field Airport. Meadows Field Airport is recognized as an Airport Influence Area, in which policies of the Kern County Airport Land Use Compatibility Plan (ALUCP) apply to the proposed Project, further described in Section 4.11, *Land Use and Planning*. Additionally, the Bakersfield Municipal Airport is located approximately 7.7 miles south of the Project site.

Fire Hazard Areas

The California Department of Forestry and Fire Prevention requires counties within the State to develop fire protection management plans that address potential threats of wildland fires. The Kern County Wildland Fire Management Plan identifies federal, State, and local responsibility areas for the entire County to facilitate coordination efforts for fire protection services. The California Department of Forestry and Fire Protection (CalFire) publishes Fire Hazards Severity Zone Maps for the State Responsibility Areas (SRA); however, the Project site is not located within a State Responsibility Area. The Project site is located in a local responsibility area (LRA) for which the County of Kern is responsible for providing fire protection. Impacts related to wildfire hazards are further discussed in Section 4.20, *Wildfire*, of this Draft EIR.

Hazardous Materials Release Sites in the Area – Cortese List

A records search was conducted of government databases compiled pursuant to the State of California Hazardous Waste and Substances Sites (Cortese) List (Government Code §65962.5) to identify any government listed hazardous materials or waste sites located on or within a 1-mile radius of the Project area. This database search included sites that did not necessarily contain contaminated soil or groundwater but were identified in federal or state databases for compliance with or enforcement of environmental regulations. A search was conducted on July 5, 2024. According to a review of the DTSC EnviroStor database, there are four hazardous release sites located within 1 mile of the Project site (DTSC 2024a). A review of the DTSC latest list of parcels relating to hazardous wastes pursuant to Section 65962.5 of the California Government Code indicates the Project site is not listed. The State Water Resources Control Board (SWRCB) GeoTracker database identified 11 Cleanup Program Sites located within 1 mile of the Project site (SWRCB 2024a). A brief summary of the relevant information obtained is listed below in **Table 4.9-1**.

Table 4.9-1: EnviroStor and GeoTracker List for One-Mile Radius of Project Site

Database	Site Name	Assessor Parcel Number	Description	Approximate Distance to Project Site
DTSC	Bakersfield Municipal Airport (J09CA0230) (80000136)	N/A	The site was used as a firing range that led to potential soil contamination from explosives (DTSC 2024b)	0.72-mile SW
DTSC	Highland Knolls School Site (15650003)	483-040-35-00	The facility led to potential soil contamination from hydrogen sulfide and methane (DTSC 2024c).	0.60-mile NE
DTSC	Lanxess Corporation (CAT080018658)	483-040-35-00	The facility was used for above ground storage tanks, hazardous waste treatment, illegal dumping, and manufacturing of petroleum and oil/water separators, which led to potential soil and soil vapor contamination from petroleum and polynuclear aromatic hydrocarbons	0.40-mile NE

Database	Site Name	Assessor Parcel Number	Description	Approximate Distance to Project Site
			(PAHS) (DTSC 2024d).	
DTSC	Tricor Refining LLC Tank Farm (80001851)	483-040-036, 483-040-35-8, 483-040-40	The facility was used for above ground storage tanks, hazardous waste treatment, illegal dumping, and manufacturing of petroleum and oil/water separators, which led to potential soil and soil vapor contamination from petroleum and PAHS (DTSC 2024e).	0.40-mile NE
SWRCB	AVIS Rent A Car Systems, Inc (T0602900771)	492-010-36	The facility led to potential soil contamination from gasoline (SWRCB 2024b).	0.54-mile SW
SWRCB	Bakersfield Pump Station (T0602900002)	483-040-01	The facility led to potential soil contamination from solvents (SWRCB 2024c).	0.88-mile NW
SWRCB	Chevron - North Meadows/Airport Plaza Property (SLT5FS004420)	491-011-41	The facility led to potential soil contamination from diesel, other petroleum, and total petroleum hydrocarbons (TPH) (SWRCB 2024d).	0.20-mile NE
SWRCB	Chevron Motor Transport (T0602900357)	492-010-37	The facility led to soil contamination from gasoline (SWRCB 2024e).	0.88-mile W
SWRCB	K.C. Air Fuel Services (T0602900527)	492-010-36	The facility led to soil contamination from gasoline (SWRCB 2024f).	0.81-mile SW
SWRCB	Ken Small Oilfield Service (T0602900131)	483-030-01	The facility led to soil contamination from gasoline (SWRCB 2024g).	0.95-mile N
SWRCB	Meadows Field (T10000012776)	492-010-37	The facility led to contamination from per- and polyfluoroalkyl substances (PFAS) (SWRCB 2024h).	0.88-mile SW
SWRCB	Mercury Air Center (T0602993706)	492-010-36	The facility led to soil contamination from gasoline (SWRCB 2024i).	0.81-mile SW
SWRCB	N.L. McCullough Co. (T0602900159)	483-030-12	The facility led to soil contamination from diesel (SWRCB 2024j).	0.87-mile NE
SWRCB	Witco Corp. Tank Farm (T0602900341)	483-040-11	The facility led to soil contamination from waste oil/motor/hydraulic/lubricating (SWRCB 2024k).	0.26-mile N

Notes:

DTSC = The Department of Toxic Substances Control

SWRCB = The State Water Resources Control Board

Schools

The County is served by 46 K-12 school districts (KCSS a). The Project site is within the boundaries of both Beardsley Elementary and Kern High School Districts (KCSS a). The closest schools to the Project site are Wingland Elementary School and North High School. These schools are located approximately within 1 mile of the Project site, and specific distances to the Project site along with other nearby schools are listed in Table 4.9-2.

Table 4.9-2: Active Schools in Proximity to the Project Site

School Name	Student Population (2022–2023)	District	Distance to Project Site (miles)
Wingland Elementary	751	Standard Elementary	0.82
Highland Elementary	729	Standard Elementary	1.38
Standard Elementary	575	Standard Elementary	1.71
Standard Middle	991	Standard Elementary	1.84
North Beardsley Elementary	752	Beardsley Elementary	1.56
San Lauren Elementary	368	Beardsley Elementary	2.41
North High	2,214	Kern High	0.86
Centennial High	2,175	Kern High	4.30
Vista West Continuation High	312	Kern High	4.51
Bakersfield High	3,004	Kern High	4.82
East Bakersfield High	2,421	Kern High	5.73

Source: Ed Data 2024

Disease Vectors

A disease vector is an insect or animal that carries a disease-producing micro-organism from one host to another. The Federal Insecticide, Fungicide and Rodenticide Act defines the term vector as “...any organism capable of transmitting the causative agent of human disease or capable of producing human discomfort or injury, including mosquitoes, flies, fleas, cockroaches, or other insects and ticks, mites or rats.”

The accumulation of organic wastes would act as attractors for various vectors. In addition, any depressed areas, ponds, or drainage channels would provide areas for the breeding of mosquitoes.

Mosquitoes

Mosquitoes are of particular concern because of their abundance and distribution. In Kern County, mosquitoes are most abundant and active between May and October. Mosquitoes require standing water to breed and can be prolific in areas with standing water, such as wetlands.

Adult female mosquitoes can deposit eggs in a variety of aquatic habitats and other sources that contain water. The immature stages of each mosquito species develop in particular habitats. In general, there are four mosquito habitat groups: agricultural, industrial, domestic, and natural sources. Typical sites within these habitat groups include:

- Agricultural Sources: irrigated pastures, dairies, and orchards.
- Industrial Sources: sewage treatment ponds and drain ditches.
- Domestic Sources: containers, debris in and around ponds, bird baths, pet watering dishes, animal troughs, septic tanks, catch basins, roadside ditches, leaky sprinkler systems, and stagnant swimming pools.
- Natural Sources: wetlands, floodplains, and rain pools.

All species of mosquitoes require standing water to complete their growth cycle. Therefore, any standing body of water represents a potential mosquito breeding habitat. Although mosquitoes typically stay close to suitable breeding habitat and blood-meal hosts, they are known to travel up to 10 miles under breezy conditions. The breeding period for mosquitoes depends on temperature but generally occurs in March through October.

Water quality also affects mosquito reproduction. Generally, poor-quality water (e.g., water with limited circulation, high temperature, and high organic content) produces greater numbers of mosquitoes than high-quality water (e.g., water with high circulation, low temperature, and low organic content). Typically, water bodies with water levels that slowly increase or recede produce greater numbers of mosquitoes than water bodies with water levels that are stable or that rapidly fluctuate.

In Kern County, the Kern Mosquito and Vector Control District is responsible for vector control and services the areas of Wasco, Buttonwillow, Shafter, Bakersfield, Lamont, and Arvin.

Mosquito Hazards

Mosquito-Borne Diseases

Mosquitoes are known to be the carriers of many serious diseases.

West Nile virus is the most important mosquito-borne disease affecting Kern County. In 2023, there were 324 human West Nile virus infections in California and 10 deaths (CDPH 2023). Of these cases, 15 (4.6%) were in Kern County.

In September 2002, the Kern County Department of Health formed a West Nile Virus Task Force and has subsequently released reports documenting cases; developed strategies to prevent the occurrence of West Nile virus; and generated public education information, such as information pamphlets. Statewide, there are 52 local agencies, including local mosquito abatement districts and the California Department of Health Services Arbovirus Field Testing Stations, which work cooperatively to routinely conduct surveillance and control of mosquitoes and the diseases they transmit throughout California.

Mosquito Species of Concern

In Kern County, two species of mosquito are primary targets for suppression. These two species, *Culex quinquefasciatus* and *Culex tarsalis*, are potential vectors of encephalitis and West Nile

virus. Other species of mosquitoes exist in Kern County that can cause a substantial nuisance in surrounding communities, but the *Culex* mosquito is the primary vector species of concern.

Although the West Nile virus can be transmitted by a number of mosquito species, *Culex* is the most common carrier. This disease is thought to be a seasonal epidemic that flares up in the summer and fall. West Nile virus is spread when mosquitoes that feed on infected birds bite humans and other animals.

The encephalitis mosquito (*Culex tarsalis*) breeds in almost any freshwater pond. Birds appear to be the primary blood-meal hosts of this species, but the insect will also feed on domestic animals and humans. This species is the primary carrier in California of western equine encephalitis, St. Louis encephalitis, and California encephalitis, and is considered a significant disease vector of concern in the state.

The house mosquito (*Culex quinquefasciatus*) usually breeds in waters with a high organic material content. This species is often identified by its characteristic buzzing. Although its primary blood-meal host is birds, the house mosquito may also seek out humans. The house mosquito is a vector of St. Louis encephalitis.

Flies

Nuisance flies have a life cycle consisting of an egg stage, three larval stages, a pupal stage, and an adult stage. Eggs are laid by a mature female fly onto a substrate appropriate for larval development. A single female can lay hundreds of eggs during her life. Nuisance fly larvae (grubs) are generally white in color and are blunt ended. They develop in wet substrates, especially dung pats and manure, wet or rotting feed, hay, and bedding straw. They feed on food particles found on the substrate. Fly larvae are not capable of developing in truly aqueous habitats; they need wet, but not overly wet, substrates.

Within the confines of a pupal case, the developing fly will undergo further changes to become a winged adult fly that will eventually emerge from the pupal case and disperse from the site. The length of time required to complete the development from egg to adult is temperature dependent and may be as short as seven days during the summer months in California.

Some nuisance flies are blood feeders and can inflict a painful bite while feeding on animals or humans. Blood feeding (or biting) flies include the stable fly and horn fly. Other flies do not bite (nonbiting flies), instead feeding on body secretions or liquefied organic matter. Nonbiting flies include the house fly, face fly, and garbage fly.

Adult flies are generally active during daylight hours and inactive at night. Nuisance flies are known to disperse from their development sites into surrounding areas; however, the distance and direction of dispersal are not well understood. Nonbiting nuisance fly species are likely to disperse further than those fly species that require animal blood meals. The habitat surrounding a breeding site plays a role in the distance of nuisance fly dispersal. Nuisance flies are likely to disperse further in open habitats, typical of rangeland and low agricultural crops, than they will in urban or

forested/orchard areas that contain substantially more vertical structure, on which flies may rest and that provide shade and higher humidity on hot summer days.

Most nuisance flies are not known to disperse great distances. Studies using marked house flies show that 60% to 80% of house flies were captured within 1 mile of their release point; 85% to 95% were caught within 2 miles of the release site within the first four days after they were turned loose. A few flies have been shown to travel further, but in general, fly control efforts for a community problem are focused within 1 mile of the source.

Rodents

There is a potential for significant populations of mice and rats due to the accumulation of organic waste. Rodents can spread, or accelerate the spread of, disease from contaminated areas to uncontaminated areas via their droppings, feet, fur, urine, saliva, or blood. In addition, mice provide a food source that could attract wild predatory animals (e.g., skunks, foxes, coyotes, and stray dogs), which could pose other disease problems.

Mice are generally nocturnal and secretive animals with keen senses of taste, hearing, smell, and touch. They are small enough to enter any opening larger than one quarter of an inch. Mice prefer cereal grains, if available, but will eat garbage, insects, meat, and even manure. Mice reproduce at high rates, making early control important in minimizing the potential for infestation. Although the life span of a mouse is only nine to 12 months, a female mouse can have five to 10 litters per year, with five or six young in each litter. Mice do not consume large quantities of food but can cause significant economic damage due to physical structure damage and site contamination.

4.9.3 Regulatory Setting

Federal

U.S. Environmental Protection Agency

The U.S. Environmental Protection Agency (EPA) was established in 1970 to consolidate a variety of federal research, monitoring, standard-setting, and enforcement activities into one agency and to ensure environmental protection. The EPA's mission is to protect human health and to safeguard the natural environment—air, water, and land—upon which life depends. The EPA works to develop and enforce regulations that implement environmental laws enacted by Congress, is responsible for researching and setting national standards for a variety of environmental programs, and delegates to states and tribes the responsibility for issuing permits and for monitoring and enforcing compliance. Where national standards are not met, the EPA can issue sanctions and take other steps to assist the states and tribes in reaching the desired levels of environmental quality.

Federal Toxic Substances Control Act/Resource Conservation and Recovery Act/Hazardous and Solid Waste Act

The Federal Toxic Substances Control Act (1976) and the Resource Conservation and Recovery Act of 1976 (RCRA) established a program administered by the EPA to regulate the generation, transportation, treatment, storage, and disposal of hazardous waste.

The RCRA grants authority to the EPA to control hazardous waste from start to finish. This covers the production, transportation, treatment, storage, and disposal of hazardous waste. The RCRA also sets forth a framework for the management of non-hazardous solid waste. The RCRA allows individual states to develop their own programs for the regulation of hazardous waste, as long as they are at least as stringent as the RCRA. The State has developed the California Hazardous Waste Control Law (Health and Safety Code [HSC] sec. 25100 et. Seq. And 22 CCR sec. 66260.1 et seq.) and the EPA has delegated authority for RCRA enforcement to the State. Primary authority for the Statewide administration and enforcement of HWCL rests with the DTSC. The RCRA was amended in 1984 by the Hazardous and Solid Waste Act, which affirmed and extended the “cradle to grave” system of regulating hazardous wastes. The 1986 amendments to the RCRA enabled the EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Comprehensive Environmental Response, Compensation, and Liability Act/Superfund Amendments and Reauthorization Act

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law (United States Code [U.S.C.] Title 42, Chapter 103) provides broad federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment. CERCLA establishes requirements concerning closed and abandoned hazardous waste sites; provides for liability of persons responsible for releases of hazardous waste at these sites; and establishes a trust fund to provide for cleanup when no responsible party can be identified. CERCLA also enables the revision of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The NCP (40 CFR, Part 300) provides the guidelines and procedures needed to respond to releases and threatened releases of hazardous substances, pollutants, and/or contaminants. The NCP also established the National Priorities List. CERCLA was amended by the Superfund Amendments and Reauthorization Act on October 17, 1986.

Clean Water Act/Spill, Prevention, Control, and Countermeasure Rule

The Clean Water Act (CWA) (33 USC Section 1251 et seq.) was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain non-point source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCBs). The Project is within the jurisdiction of the Central Valley RWQCB. Section 402 of the CWA

authorizes the California SWRCB to issue NPDES General Construction Storm Water Permit (Water Quality Order 99-08-DWQ), referred to as the “General Construction Permit.” Construction activities can comply with and be covered under the General Construction Permit provided that they:

- Develop and implement a Storm Water Pollution Prevention Plan which specifies best management practices (BMPs) that will prevent all construction pollutants from contacting stormwater and with the intent of keeping all products of erosion from moving off-site into receiving waters
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the nation
- Perform inspections of all BMPs. NPDES regulations are administered by the RWQCB
- Projects that disturb one or more acres are required to obtain NPDES coverage under the Construction General Permits

Other federal regulations overseen by the EPA relevant to hazardous materials and environmental contamination include Title 40 CFR Chapter 1, Subchapter D – Water Programs and Subchapter I – Solid Wastes. Title 40 CFR Chapter 1, Subchapter D, Parts 116 and 117 designate hazardous substances under the CWA. Title 40 CFR Part 116 sets forth a determination of the reportable quantity for each substance that is designated as hazardous. Title 40 CFR Part 117 applies to quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the United States.

Emergency Planning and Community Right-to-Know Act

Under the Emergency Planning and Community Right-to-Know Act, or Title III of the Superfund Amendments and Reauthorization Act, the EPA requires local agencies to regulate the storage and handling of hazardous materials and requires development of a plan to mitigate the release of hazardous materials. Businesses that handle any of the specified hazardous materials must submit to government agencies (i.e., fire departments or public health departments) an inventory of the hazardous materials, an emergency response plan, and an employee training program. The business plans must provide a description of the types of hazardous materials/waste on site and the location of these materials. The information in the business plan can then be used in the event of an emergency to determine the appropriate response action, the need for public notification, and the need for evacuation.

In 1990, Congress passed the Pollution Prevention Act, which requires facilities to report additional data on waste management and source reduction activities to the EPA under the Toxics Release Inventory Program. The goal of the Toxics Release Inventory is to provide communities with information about toxic chemical releases and waste management activities and to support informed decision-making at all levels by industry, government, nongovernmental organizations, and the public.

Hazardous Materials Transportation Act (P.L. 93-933, January 1975)

The Hazardous Materials Transportation Act (HMTA) is the federal legislation that regulates transportation of hazardous materials. The primary regulatory authorities are the U.S. Department of Transportation (USDOT), the Federal Highway Administration, and the Federal Railroad Administration. The Secretary of the USDOT receives the authority to regulate the transportation of hazardous materials from the HMTA, as amended and codified in 49 U.S.C. 5101 et seq. The Pipeline and Hazardous Materials Safety Administration (formerly the Research and Special Provisions Administration) was delegated the responsibility to write the hazardous materials regulations, which are contained in 49 CFR Parts 100-180. The HMTA requires that carriers report accidental releases of hazardous materials to the USDOT at the earliest practical moment, but no later than 12 hours after the occurrence of any incident (49 CFR Subtitle B, Chapter 1, Subchapter C, Part 171.15 Subpart B).

Associated Hazardous and Solid Waste Amendments (40 CFR 260)

Under the RCRA, individual states may implement their own hazardous waste programs, instead of the RCRA, as long as the state program is at least as stringent as the federal RCRA requirements. The DTSC administers and enforces the federal hazardous waste regulations, in addition to more stringent state hazardous waste regulations. In the state chapter in this section is the Hazardous Waste Control Act of 1972. This Act is the California Waste Management program, which is similar to, but more stringent than, RCRA program requirements.

The RCRA was amended by the Associated Hazardous and Solid Waste Amendments (HSWA), which affirmed and extended the concept of regulating hazardous wastes from generation through disposal. The HSWA specifically prohibits the use of certain techniques for the disposal of some hazardous wastes. 40 CFR, Part 260.1 and Part 260.2 provide the guidelines to establish a Hazardous Waste Management System. Part 260.1 defines the terminology, requirements and guidelines necessary to track hazardous waste activities, treatment, storage, and disposal, facility and keep certain records plus submit reports to the EPA at regular intervals. Part 260.2 addresses the availability or confidentiality of information available to the public including both written and electronic hazardous waste manifest.

Occupational Safety and Health Act (29 U.S.C. 651-678)

Under the authority of the Occupational Safety and Health Act of 1970, the Occupational Safety and Health Administration—a division of the Department of Labor—established health and safety standards for the workplace, including the reporting requirements for accidents and occupational injuries. Relevant regulations include those related to hazardous materials handling, employee protection requirements, first aid, and fire protection, as well as material handling and storage. Relevant portions are summarized below.

Hazard Communication (29 CFR 1910.1200)

The purpose of this section is to ensure that the hazards of all chemicals produced or imported are classified, and that information concerning the classified hazards is transmitted to employers and employees. The requirements of this section are intended to be consistent with the provisions of

the United Nations Globally Harmonized System of Classification and Labeling of Chemicals, Revision 3. The transmittal of information is to be accomplished by means of comprehensive hazard communication programs, which are to include container labeling and other forms of warning, safety data sheets and employee training.

Process Safety Management of Highly Hazardous Materials, 29 CFR 1910.119

This regulation establishes requirements for preventing or minimizing the consequences of catastrophic releases of toxic, flammable, reactive or explosive materials. The Process Safety Management regulation requires compiling process safety information, conducting process hazard analyses, written operating procedures, employee training and participation programs, pre-startup safety reviews, evaluation of mechanical integrity of critical equipment, contractor requirements, written procedures for managing change, hot work permit systems, incident investigations, emergency action plans, and compliance audits.

Federal Aviation Administration

The Federal Aviation Administration (FAA) regulates aviation at regional, public, private, and military airports. The FAA regulates objects affecting navigable airspace and structures taller than 200 feet, according to Federal Aviation Regulation 14 CFR Part 77. The U.S. and California Departments of Transportation also require the proponent to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration. According to 14 CFR Part 77.5, notification allows the FAA to identify potential aeronautical hazards in advance, thus preventing or minimizing any adverse impacts on the safe and efficient use of navigable airspace. Any structure that would constitute a hazard to air navigation, as defined in 14 CFR Part 77, requires issuance of a permit from the California Department of Transportation's (Caltrans's) Aeronautics Program. The permit is not required if the FAA aeronautical study determines that the structure has no impact on air navigation.

State

Federal statutes establish national standards for the transportation, emission, discharge, and the disposal of harmful substances; however, implementation and enforcement of many of the large programs has been delegated to the states by the EPA. In general, states set stricter standards than those required by federal law.

Hazardous Materials and Hazardous Waste

Whether a material is deemed a hazardous material and/or a hazardous waste determines which state regulation will apply to it. According to HSC § 25124, materials become waste when the material is disposed of, burned or incinerated, or accumulated, stored or treated before or in lieu of being disposed of, burned or incinerated. Recyclable materials that are managed as provided in HSC § 25143.2 and 25143.9 are excluded from classification as waste. A hazardous waste is a waste that because of its quantity, concentration, or physical, chemical, or infectious characteristics may either:

- Cause or significantly contribute to an increase in mortality or an increase in serious irreversible or incapacitating reversible illness.
- Pose a substantial present or potential hazard to human health or the environment, due to factors including, but not limited to, carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties, or persistence in the environment, when improperly treated, stored, transported, disposed of, or otherwise managed (HSC § 25117; 25141).

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Material Release Response Plans and Inventory Act (HSC, Division 20, Chapter 6.95, Sections 25500-25547.8) also known as the Business Plan Act (HSC, Division 20, Chapter 6.95, Sections 25500-25519) requires businesses using hazardous materials to prepare a plan that describes their facilities, inventories, emergency response plans, and training programs. Hazardous materials are defined as raw or unused materials that are hazardous and are part of a process or manufacturing step. Specifically, the California HSC Sections 25503 and 25505 require facilities that store hazardous materials in excess of 55 gallons, 500 pounds, or 200 cubic feet to submit Hazardous Materials Business Plans to the Certified Unified Program Agency (CUPA). This plan must include a hazardous materials inventory and address emergency response, planning, training, and evacuation.

Hazardous Waste Control Act of 1972 (HSC Division 20, Chapter 6.5)

The Hazardous Waste Control Act established the state hazardous waste management program, which is similar to, but more stringent than RCRA program requirements. The Hazardous Waste Control Law regulates the management of hazardous waste under HSC, Division 20 Chapter 6.5. This law defines hazardous wastes and the procedures for the handling, transportation, and disposal of hazardous waste. The implementing regulations prescribe management practices for hazardous wastes; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills. Hazardous waste is tracked from the point of generation to the point of disposal or treatment using hazardous waste manifests. The manifests list a description of the waste, its intended destination, and regulatory information about the waste. The hazardous waste control program is administered by the state DTSC and by local CUPAs.

Title 22 of the CCR Division 4.5, Environmental Health Standards for Management of Hazardous Waste provides the regulatory requirements for the implementation of the law. Chapter 11 defines a waste as hazardous if it has any of the following characteristics: ignitability, corrosivity, reactivity, and toxicity. Article 3 provides detailed definitions of each characteristic. Articles 4 and 5 provide lists of RCRA hazardous wastes, non-RCRA hazardous wastes, hazardous wastes from specific sources, extremely hazardous wastes, hazardous wastes of concern, and special wastes. Chapters 12, 13, and 14 provide the standards for hazardous waste generators and transporters as well as for the owners of transfer, treatment, storage, and disposal facilities.

Uniform Fire Code--Hazardous Materials Management Plan, Hazardous Materials Inventory Statement

The Uniform Fire Code (UFC) prescribes regulations that are consistent with best practices to address fire and explosion hazards that can arise from the storage, handling and use of hazardous substances, materials, and devices. The State Fire Marshal has adopted the UFC, with amendments, as the California Fire Code. Local fire departments are required to adopt local fire codes that are no less stringent than the California Fire Code (Brown n.d.).

According to Section 8001.3.1, a permit is required to store, use, or handle hazardous material in excess of specified quantities. A local fire chief may require permit applicants to prepare a Hazardous Materials Management Plan (Section 8001.3.2a) and a Hazardous Materials Inventory Statement (Section 8001.3.3a). These documents are consistent with the Hazardous Materials Business Plans (Brown n.d.).

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program)

Senate Bill 1082 of 1993 (HSC Chapter 6.11) required the Secretary of the CalEPA to establish a “unified hazardous waste and hazardous materials management” regulatory program (Unified Program) by January 1, 1996. Currently, there are 83 CUPAs in California. All counties have been certified by the Secretary. The *Unified Program* consolidates, coordinates, and makes consistent six existing programs.

The Unified Program provides for local implementation of the following six state and federal regulatory programs:

- The Aboveground Storage Tank program (and its Spill, Prevention, Control, and Countermeasures)
- The Hazardous Materials Release Response Plan and Inventory Program (Business Plan)
- The California Accidental Release Prevention Program (CalARP)
- The California UFC, Hazardous Materials Management Plan, and Hazardous Materials Inventory Statement
- The Underground Storage Tank program
- The Hazardous Waste Generator and Onsite Hazardous Waste Treatment program (tiered permitting)

The local implementing agencies are known as CUPAs (certified unified program agencies) or PAs (participating agencies) (Brown, n.d.).

California Environmental Protection Agency

The CalEPA was created in 1991, which unified California’s environmental authority into a single cabinet-level agency and brought the California Air Resources Board, SWRCB, RWQCBs,

California Department of Resources Recycling and Recovery—formerly the Integrated Waste Management Board, DTSC, Office of Environmental Health Hazard Assessment, and Department of Pesticide Regulation—under one agency. These agencies were placed within the CalEPA “umbrella” for the protection of human health and the environment and to ensure the coordinated deployment of state resources. Their mission is to restore, protect, and enhance the environment, to ensure public health, environmental quality, and economic vitality.

Department of Toxic Substances and Control

DTSC, a department of CalEPA, is the primary agency in California for regulating hazardous waste, cleaning up existing contamination, and finding ways to reduce the amount of hazardous waste produced in California. DTSC regulates hazardous waste primarily under the authority of the Federal RCRA and the California Health and Safety Code (primarily Division 20, Chapters 6.5 through 10.6, and Title 22, Division 4.5). Other laws that affect hazardous waste are specific to handling, storage, transportation, disposal, treatment, reduction, cleanup, and emergency planning.

USC 65962.5 (commonly referred to as the Cortese List) includes DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the SWRCB as having underground storage tank leaks or a discharge of hazardous wastes or materials into the water or groundwater and lists from local regulatory agencies of sites with a known migration of hazardous waste/material.

Hazardous Waste and Substances Sites (Cortese) List (California Government Code §65962.5)

This state code requires the state to compile a hazardous waste and substance list. The Cortese List is a planning document used to comply with the California Environmental Quality Act (CEQA) requirements by providing information about the location of hazardous materials release sites. The CalEPA must update the Cortese List annually.

California Accidental Release Prevention (CCR 2745.1, 1997)

The CalARP is designed to minimize the risk of extremely hazardous substances that can potentially cause immediate harm to the public and the environment, by requiring business owners and/or operators handling one or more regulated substance over the state and/or federal threshold to evaluate and determine the potential impacts of an accidental release. The CalARP mirrors the federal Risk Management Program (RMP) under the federal Clean Air Act Section 112(r), except that it includes external events and seismic analysis to the requirements and includes facilities with lower inventories of materials.

Facilities subject to the CalARP requirements must submit an RMP to the CUPA. The RMP must contain the required elements, which are similar to those required under the federal RMP program. The specific requirements are determined by the CalARP “program level” that applies to the facility. For example, the RMP typically must include safety information, process hazard analysis,

or hazard review, written operating procedures, training, maintenance, compliance audits, and incident investigations.

Emergency Services Act of 2009

Under the Emergency Services Act, the state developed an emergency response plan to coordinate emergency services provided by federal, State, and local agencies. Rapid response to incidents involving hazardous materials or hazardous waste is an important segment of the plan, as administered by the California Office of Emergency Services (CalOES), formerly the California Emergency Management Agency. CalOES is responsible for the coordination of overall state agency response to major disasters in support of local government. The office is responsible for assuring the state's readiness to respond to and recover from all hazards—natural, manmade, war-caused emergencies and disasters—and for assisting local governments in their emergency preparedness, response, recovery, and hazard mitigation efforts.

Local

Metropolitan Bakersfield General Plan

The Project is located within the Metropolitan Bakersfield General Plan (MBGP) area; therefore, would be subject to applicable policies and measures of the MBGP. The Land Use Element and Safety Element of the MBGP include goals, policies, and implementation measures related to hazardous and hazardous materials that apply to the Project, as described below.

Chapter II. Land Use Element.

Policies

Policy 6. Accommodate new development that is sensitive to the natural environment, and accounts for environmental hazards.

Chapter VIII. Safety Element.

General Provisions

Goals

Goal 4. Assure that fire, hazardous substance regulation and emergency medical service problems are continuously identified and addressed in a proactive way, in order to optimize safety and efficiency.

Implementation Measures

Implementation Measure 1. The adopted multi-jurisdictional Kern County, California Multi-Hazard Mitigation Plan, as approved by the Federal Emergency Management Agency, shall be used as a source document for preparation of environmental documents pursuant to CEQA, evaluation

of Project proposals, formulation of potential mitigation and identification of specific actions that could, if implemented, mitigate impacts from future disasters and other threats to public safety.

Implementation Measure 27. Facilities used for the manufacture, storage or use of hazardous materials shall comply with the uniform fire code, with requirements for siting or design to prevent on-site hazards from affecting surrounding communities in the event of inundation.

Implementation Measure 32. Require disaster response plans to include adequate capabilities for search and rescue, medical responses, interim morgue, emergency shelter, traffic and utility impacts, debris removal and disposal, as well as hazardous materials response.

Flooding

Implementation Measures

Implementation Measure 2. Develop procedures for the review of proposed facilities which use, manufacture or store hazardous materials proposed in areas of identified flood hazard.

Public Safety

Policies

Policy 7. Enforce ordinances regulating the use/manufacture/sale/ transport/disposal of hazardous substances, and require compliance with state and federal laws regulating such substances.

Policy 8. The Kern County and Incorporated Cities Hazardous Waste Management Plan and Final Environmental Impact Report serves as the policy document guiding all facets of hazardous waste.

Policy 12. Where recommended by appropriate local, State or Federal agencies for discretionary Projects, soils shall be tested for concentrations of agricultural chemicals prior to grading permit approval, whenever feasible. Contaminated soils shall be excavated and disposed of at a certified hazardous waste disposal facility whenever necessary.

Policy 16. All new discretionary development Projects shall be subject to environmental and design review on a site-specific, Project-by-Project basis, including but not limited to, an assessment to determine whether hazardous materials present potential health affects to human health as required by the Department of Environmental Services.

Kern County Multi-Jurisdiction Hazard Mitigation Plan

The purpose of the multi-jurisdiction hazard mitigation plan is to reduce or eliminate the long-term risk to people and property from natural hazards and their effects in the County. The 2019-2020 Update to the Plan is to help Kern County become less vulnerable to losses from future disasters. Hazard mitigation is the use of sustained, long-term actions to reduce the loss of life, personal injury, and property damage that can result from a disaster. The multi-jurisdictional plan includes the County and the incorporated municipalities of Arvin, Bakersfield, California City, Delano, Maricopa, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. The County also encompasses areas of land controlled by federal and State land management agencies, including

the California Department of Forestry and Fire Protection, Bureau of Land Management, and Bureau of Reclamation. While other levels of government have jurisdiction in these parts of the County, the Hazard Mitigation Plan could also be used to document and coordinate mitigation efforts among federal, State, and local jurisdictions. This plan also covers 49 special districts that include school, airport, community service, water, recreation and park, sanitation, and other districts.

Kern County Fire Code

Kern County has adopted, by reference, portions of the California Building Standards Code and the UFC, with modifications and amendments, in Chapter 17.32 of the Kern County Code of Building Regulations (Fire Code). The purpose of this code is to prescribe the minimum requirements necessary to establish a reasonable level of fire safety to protect life and property from hazards created by fire, explosion, and dangerous conditions.

The Kern County Fire Code defines a hazardous fire area as any land that is covered with grass, grain, brush, or forest and situated so that a fire originating upon such land would present an abnormally difficult job of suppression (e.g., in an inaccessible location) and would result in great and unusual damage through fire or the resulting erosion.

Kern County Certified Unified Program Agency

The CUPA was developed to consolidate the administration of hazardous materials programs. In the Kern County, the CUPA is the Environmental Health Services Division. The city of Bakersfield's CUPA is the Bakersfield Fire Department. Under the CUPA, site inspections of aboveground storage tanks, underground storage tanks, hazardous waste treatment, hazardous waste generators, hazardous materials management and response plans, and the California Fire Code are consolidated in a single inspection. These departments also provide emergency response to hazardous materials events.

Kern County and Incorporated Cities Hazardous Waste Management Plan

State Assembly Bill 2948 (1986) authorizes local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to ensure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within the local government's jurisdiction. The Kern County and Incorporated Cities Hazardous Waste Management Plan (Hazardous Waste Plan) was first adopted by Kern County, and each incorporated city, before September 1988, and was subsequently approved by the California Department of Health Services. The Hazardous Waste Plan was updated and incorporated by reference into the Kern County General Plan in 2004 as permitted by HSC Section 25135.7(b) and thus must be consistent with all other aspects of the KCGP.

The Hazardous Waste Plan provides policy direction and action programs to address current and future hazardous waste management issues that require local responsibility and involvement in Kern County. In addition, the Hazardous Waste Plan discusses hazardous waste issues and analyzes current and future waste generation in the incorporated cities, County, and State, and

federal lands. The purpose of the hazardous Waste Plan is to coordinate local implementation of a regional action to effect comprehensive hazardous waste management throughout Kern County. The action program focuses on development of programs to equitably site needed hazardous waste management facilities; to promote on-site source reduction, treatment, and recycling; and to provide for the collection and treatment of small quantity hazardous waste generators. An important component of the Hazardous Waste Plan is the monitoring of hazardous waste management facilities to ensure compliance with federal and state hazardous waste regulations. The siting criteria and any subsequent environmental documentation required pursuant to CEQA would also ensure the mitigation of adverse impacts associated with the siting of any new hazardous waste facility.

Kern County Airport Land Use Compatibility Plan

The purpose of the Kern County ALUCP is to establish procedures and criteria by which Kern County, and the affected incorporated cities, can address compatibility issues when making planning decisions regarding airports and military operations areas and the land uses around them. In general, the plan describes and maps influence areas in the vicinity of public use airports in Kern County where development restrictions are established to prevent the construction or placement of structures or objects which may be an obstruction to air navigation. The plan covers airports in the unincorporated portions of the County and the affected incorporated cities of Bakersfield, California City, Delano, Shafter, Taft, Tehachapi, and Wasco. Compatibility Criteria as included in the ALUCP is provided in **Figure 4.9-1**. The plan was last updated in 2012.

Figure 4.9-1: Kern County ACLUP Compatibility Criteria

Policies / Chapter 2

Table 2A					
Compatibility Criteria					
Kern County Airport Land Use Compatibility Plan					
Zone	Location ¹	Impact Elements	Maximum Densities		Required Open Land ⁴
			Residential ² (du/ac)	Other Uses (people/ac) ³	
A	Runway Protection Zone or within Building Restriction Line	<ul style="list-style-type: none"> High risk High noise levels 	0	10	All Remaining
B1	Approach/Departure Zone and Adjacent to Runway	<ul style="list-style-type: none"> Substantial risk — aircraft commonly below 400 ft. AGL or within 1,000 ft. of runway Substantial noise 	0.1	60	30%
B2	Extended Approach/Departure Zone	<ul style="list-style-type: none"> Significant risk — aircraft commonly below 800 ft. AGL Significant noise 	0.5	60	30%
C	Common Traffic Pattern	<ul style="list-style-type: none"> Limited risk — aircraft at or below 1,000 ft. AGL Frequent noise intrusion 	15	150	15%
D	Other Airport Environs	<ul style="list-style-type: none"> Negligible risk Potential for annoyance from overflights 	No Limit	No Limit	No Requirement
E	Special Land Use	<ul style="list-style-type: none"> Compatibility Issues 	15	150	No Requirement

Zone	Additional Criteria		Examples	
	Prohibited Uses ⁵	Other Development Conditions ⁶	Normally Acceptable Uses ⁷	Uses Not Normally Acceptable ¹⁰
A	<ul style="list-style-type: none"> All structures except ones with location set by aeronautical function Assemblages of people Objects exceeding FAR Part 77 height limits Hazards to flight⁸ 	<ul style="list-style-type: none"> Dedication of aviation easement 	<ul style="list-style-type: none"> Aircraft tiedown apron Pastures, field crops, vineyards Automobile parking 	<ul style="list-style-type: none"> Heavy poles, signs, large trees, etc.
B1 and B2	<ul style="list-style-type: none"> Schools, day care centers, libraries Hospitals, nursing homes Highly noise-sensitive uses (e.g. amphitheaters) Storage of highly flammable materials⁹ Hazards to flight⁸ 	<ul style="list-style-type: none"> Locate structures maximum distance from extended runway centerline Dedication of aviation easement 	<ul style="list-style-type: none"> Uses in Zone A Any agricultural use except ones attracting bird flocks Warehousing, truck terminals Two-story offices Single-family homes on an existing lot 	<ul style="list-style-type: none"> Residential subdivisions Intensive retail uses Intensive manufacturing or food processing uses Offices with more than two stories Hotels and motels
C	<ul style="list-style-type: none"> Schools Hospitals, nursing homes Hazards to flight⁸ 	<ul style="list-style-type: none"> Dedication of overflight easement for residential uses 	<ul style="list-style-type: none"> Uses in Zone B Parks, playgrounds Most retail uses Duplexes and medium-density apartments Two-story motels 	<ul style="list-style-type: none"> Large shopping malls Theaters, auditoriums Large sports stadiums Hi-rise office buildings with more than four stories
D	<ul style="list-style-type: none"> Hazards to flight⁸ 	<ul style="list-style-type: none"> Deed notice required for residential development 	<ul style="list-style-type: none"> All except ones hazardous to flight 	
E	<ul style="list-style-type: none"> Hazards to flight⁸ 	<ul style="list-style-type: none"> Special development conditions 	<ul style="list-style-type: none"> Unique circumstance land use development¹¹ 	

2-2

Table 2A Continued

Compatibility Criteria**Kern County Airport Land Use Compatibility Plan****NOTES**

- 1 Zones may also apply elsewhere if an airport has atypical operational procedures or specialized aircraft activities.
- 2 Residential parcels should not contain more than the indicated number of dwelling units per gross acre. Clustering of units is encouraged as a means of meeting the Required Open Land requirements.
- 3 The land use should not attract more than the indicated number of people per acre at any time. This figure should include all individuals who may be on the property (e.g., employees, customers/visitors, etc.). These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Special short-term events related to aviation (e.g., air shows), as well as non-aviation special events, are exempt from the maximum density criteria.
- 4 Open land requirements are intended to be applied with respect to the entire zone. This is typically accomplished initially as part of the community's general plan or a specific plan.
- 5 May be modified by airport-specific policies or decision of local governing body with appropriate adopted findings based upon evidence in the record.
- 6 See Policy Section 3.3.
- 7 Within the B1 and B2 zones, only the following flammable materials are permitted: aviation fuel, other aviation-related materials, and up to 2,000 gallons of nonaviation materials.
- 8 These conditions do not apply to ministerial actions.
- 9 These uses typically can be designed to meet the density requirements and other development conditions listed.
- 10 These uses typically do not meet the density and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and no feasible alternative location exists.
- 11 The E zone accommodates land uses with special characteristics that are not normally allowed in the C Zone. Each E zone is unique to the requested land use and each individual airport. Special conditions of development may be formulated in order to minimize flight hazards.

Source: *Comprehensive Airport Land Use Plan (1996)*

Kern County Code of Ordinances Chapter 19.76 – Airport Approach Height (H) Combining District

The purpose of the Kern County Airport Height (H) Combining District is to minimize aviation hazards by regulating land uses, restricting the height of buildings and vegetation, and specifying design criteria necessary to promote aviation safety and to implement the requirements of the adopted ALUCP. The H district may be applied to areas within the vicinity of any public or general-use airport as provided for in the ALUCP. The H district design standards restrict the types of lighting, surface reflectivity, types and heights of structures and electrical or radio interference with air navigation communications. The H district design standards also require that storage of more than 2,000 gallons of nonaviation liquid fuel at privately-owned airports in the B-1 and B-2 airport land use compatibility zones be restricted to underground storage tanks. The H district further requires that except for the construction of single-family dwellings and permitted residential accessory structures on existing lots of record, no use, building, structure, plant, or tree shall be established until an application for site development plan review has been submitted to and approved by the Planning Director.

Lake Isabella Dam Failure Evacuation Plan

The Lake Isabella Dam Failure Evacuation Plan was developed and is maintained by the Kern County/Operational Area Office of Emergency Services. It provides the basic framework for response to an actual or potential failure of the Lake Isabella Dam, in accordance with the requirements of the Dam Safety Act (Government Code § 8589.5). The plan describes the specific actions to be taken by various response organizations and establishes a process and procedures for the mass evacuation and short-term support of populations at risk below the Dam. The plan defines evacuation routes within the County, separated into zones: North, Northwest, Southwest, Southeast, and Central. The North Zone indicates to travel north on the nearest major street, Airport Drive, North Chester or Manor Street to Merle Haggard Drive (KCFD 2009).

4.9.4 Impacts and Mitigation Measures

Methodology

The methodology for determining impacts relating to hazardous materials focuses on (1) the potentially significant impacts related to the routine transport, use, or disposal of hazardous materials and the release of hazardous materials into the environment; and (2) proposed Project components that could result in environmental contamination.

The methodology for determining impacts relating to wildland fires focuses on the fire severity at the Project site and the surrounding areas based on existing state and local maps and land characteristics.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist state that a Project would normally be considered to have a significant impact if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 1/4 mile of an existing or proposed school
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code § 65962.5 and, as a result, would it create a significant hazard to the public or the environment
- For a Project located within the adopted Kern County Airport Land Use Compatibility Plan, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area
- Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan
- Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires
- Would implementation of the Project generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste?

Specifically, would the Project exceed the following qualitative threshold:

The presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the Project is significant when the applicable enforcement agency determines that any of the vectors:

- Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment
- Are associated with design, layout, and management of Project operations; and
- Disseminate widely from the property
- Cause detrimental effects on the public health or well-being of the majority of the surrounding population.

Project Impacts

Impact 4.9-1: The Project would create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.

Construction

Construction of the proposed Project would not involve the routine transport, use, or disposal of substantive quantities of hazardous materials, as defined by the Hazardous Materials Transportation Uniform Safety Act. Most of the hazardous materials used and hazardous waste generated by the Project would occur during the temporary construction period. Hazardous materials used for construction would be typical of most construction projects of this type. Materials would include small quantities of gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, ethylene glycol, dust palliative, herbicides, and welding materials/supplies. These materials would be transported to the Project site during construction, and any hazardous wastes that are produced as a result of the construction of the Project would be collected and transported away from the site in accordance with BMPs. During construction of the Project, material safety data sheets for all applicable materials present at the site would be made readily available to onsite personnel in accordance with required BMPs as part of a Stormwater Pollution Prevention Plan (Section 4.10, *Hydrology and Water Quality*). Workers would be trained to properly identify and handle all hazardous materials. Any hazardous waste or hazardous materials would be either recycled or disposed of at a permitted and licensed treatment and/or disposal facility. All hazardous waste shipped offsite for recycling or disposal would be transported by a licensed and permitted hazardous waste hauler and disposed of at an approved location.

During construction of the facilities, non-hazardous construction debris would be generated and disposed of in local landfills or recycled. Sanitary waste would be managed using portable toilets and portable hand washing facilities serviced by truck, located at a reasonably accessible onsite location.

Hazardous materials such as petroleum fuels and lubricants used on field equipment would be subject to the Material Disposal and Solid Waste Management Plan and other measures to limit releases of hazardous materials and wastes (see further discussion of BMP requirements in Section 4.10, *Hydrology and Water Quality*, of this Draft EIR). Recyclable materials including wood, shipping materials, and metals would be separated when possible, for recycling. Liquids and oils in the transformers and other equipment would be used in accordance with applicable regulations. The disposal of all oils, lubricants, and spent filters would be performed in accordance with all applicable regulations including the requirements of licensed receiving facilities.

Overall, the relatively limited use and small quantities of hazardous materials, and subsequently transport and disposal of such materials, during construction would be controlled through compliance with applicable regulations including the Kern County and Incorporated Cities

Hazardous Waste Management Plan. As such, impacts during construction would be less than significant.

Operation

The Project proposes the development of two single-story logistics warehouses and associated improvements. The primary function of the Project would be high cube and cold storage to facilitate material handling equipment and storage uses. Operations and maintenance activities associated with facilities would require very limited use of hazardous waste, as the primary use is a storage facility for material handling. The transport and/or storage of hazardous materials is not proposed or reviewed in this Draft EIR. Once a tenant is identified for the building, that tenant would be required to comply with all applicable federal, state, and local regulatory framework related to the storage, handling, and transport of any goods, products or materials used at the Project Site.

The proposed Project would produce a small amount of hazardous waste associated with maintenance activities, which could include paint, solvents, cleaners, and waste oil. Workers would be trained to properly identify and handle all hazardous wastes. Fuels and lubricants used in operations would be subject to the Spill Prevention, Containment, and Countermeasure Plan to be prepared for the proposed Project, as required by **Mitigation Measure MM 4.9-1**. Hazardous waste would be either recycled or disposed of at a permitted and licensed treatment and/or disposal facility. All hazardous waste shipped off-site for recycling or disposal would be transported by a licensed and permitted hazardous waste hauler and disposed of at an approved location. To mitigate any potential impacts of the use of hazardous materials, **Mitigation Measure MM 4.9-2**, requires that any hazardous materials be stored and managed properly as well as Material Safety Data Sheets be on site. Additionally, **Mitigation Measure MM 4.9-3**, requires IPG Kern County 52 Holdings, LLC (the project proponent) to consult with the Kern County Public Health Services Department – Environmental Health Division to determine the need to prepare a Hazardous Materials Business Plan that would describe proper handling, storage, transport, and disposal techniques; methods to be used to avoid spills and minimize impacts in the event of a spill. If needed, the Plan would ensure that all handling, storage, and disposal of hazardous materials would be conducted in accordance with proven practices to minimize exposure to maintenance workers and/or the public. As such, impacts during operation would be less than significant with mitigation.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.9-1** through **Mitigation Measure MM 4.9-3** would be required.

MM 4.9-1 Prior to the issuance of grading or building permits related to facilities requiring a Spill Prevention Control and Countermeasures Response Plan, the Project proponent shall prepare and submit a Spill Prevention Control and Countermeasures Response Plan to the Kern County Public Health Services Department, Environmental Health Division, and the California Department of Water Resources, for review and approval by those agencies. The Project

proponent shall ensure the Project is implemented in compliance with the approved Spill Prevention Control and Countermeasures Response Plan.

MM 4.9-2 Prior to the issuance of building permits, the Project proponent shall ensure that any hazardous materials be stored properly, and Material Safety Data Sheets shall be on site. Hazardous waste shall be managed properly. Training shall be provided to all personnel involved in handling of any hazardous materials or waste.

MM 4.9-3 The project proponent shall consult with the Kern County Public Health Services Department – Environmental Health Division – Hazardous Materials Program. If required, the project proponent shall submit a Hazardous Materials Business Plan to the Kern County Environmental Health Division Hazardous Materials program and with the California Environmental Reporting System (CERS) for hazardous materials/wastes stored on site. This Business Plan, as applicable, shall be submitted within 30 days of operation.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.9-1** through **MM 4.9-3**, impacts would be less than significant.

Impact 4.9-2: The Project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

Construction

The Phase I ESA prepared for the proposed Project identified the following de minimis conditions and recommendations:

- The subject property has a historical agricultural use as irrigated row crop ground from prior to 1937 to the late 1990s. There is the potential that chlorinated pesticide residues exceeding commercial-use Regional Screening Levels may be present.

It was recommended that no further investigation is warranted.

- In the southeast portion of the subject property, AEC observed both older and newer soil stockpiles that have been dumped onsite; the genesis of the older-dumped material is currently unknown; however, the newer dumped material appears to be derived from construction waste and gardening waste (green waste). In addition, there a few small areas of illegal dumping surrounding the stockpiles of soil that primarily consist of household-related waste.

It was recommended to remove construction debris or material that would be considered “unsuitable” by a geotechnical engineer prior to conducting grading and disposing the inferred non-hazardous waste at an appropriate offsite landfill.

It was also recommended to post a “no dumping” sign to deter future illegal dumping.

- A review of historical aerial photographs indicates that the subject property was adjacent to the former location of large aboveground impoundments used for crude oil storage in offsite Section 1 east of Airport Drive. The impoundments were in active use in the open ground east of Airport Drive from at least 1910 through the 1940s and the footprints visible through the early 1990s. Closure of these impoundments typically consisted of pumping out all accessible crude and then pushing the residual crude to the center so that it would dry and then be removed for offsite disposal. However, this mitigation effort did not take into account any crude oil that had previously percolated into the subsurface.

Further investigation was not recommended unless crude oil-related waste is discovered onsite during grading.

Potentially significant impacts that may result from construction of the Project include the accidental release of materials, such as cleaning fluids and petroleum products including lubricants, fuels, and solvents. Fuels and lubricants used in operations would be subject to the Spill Prevention, Containment, and Countermeasure Plan to be prepared for the proposed Project, as required by **Mitigation Measure MM 4.9-1**. **Mitigation Measure MM 4.9-2** would also be implemented to mitigate any potential impacts of the use of hazardous materials, ensuring that any hazardous materials be stored and managed properly as well as Material Safety Data Sheets be on site. Additionally, potential impacts would be mitigated through implementation of **Mitigation Measure MM 4.9-3**, which would provide methods to be used to avoid spills and minimize impacts in the event of a spill by providing procedures for handling and disposing hazardous materials as well as public and agency notification procedures for spills and other emergencies including fires, would reduce this impact to a less than significant level. Additionally, **Mitigation Measure MM 4.7-8** would require the preparation of a Soil Erosion and Sedimentation Control Plan to mitigate potential loss of soil and erosion, addressing drainage and runoff (Section 4.7, *Geology and Soils*).

Nearby sensitive receptors could be exposed to pollutant emissions during construction of the Project, resulting in a potentially significant impact. An adverse risk related to exposure to hazardous materials could result from the grading of the site, the application of herbicides, or other construction processes because of the distance between the sensitive receptors and the Project site. Implementation of **Mitigation Measure MM 4.4-3** (Section 4.3, *Biological Resources*, for full mitigation measure text) would ensure that proper procedures are followed when using herbicides. The construction phase has the potential to accidentally release cleaning fluids and petroleum products including lubricants, fuels, and solvents. Implementation of established construction controls would reduce the risk of hazardous materials spills and releases during Project construction. Implementation of **Mitigation Measure MM 4.9-4** would ensure that proper procedures are followed if suspect materials or wastes of unknown origin are discovered during construction. Therefore, impacts during construction would be less than significant with mitigation.

Operation

The operation of the facility has the potential to accidentally release hazardous materials into the environment in the form of waste associated with maintenance activities, which could include paint, solvents, cleaners, and waste oil.

Paints may consist of toxic materials and heavy metal compounds, including lead, arsenic and chromium. Paint used during operation may include oil-based paints, which contain solvents and chemicals that are flammable. The use of paints often includes the use of solvents, such as thinners, mineral spirits or turpentine and rags. Similarly, paint thinners, paint removers, or any other solvent also contain chemicals that are flammable.

Cleaning fluids are a mix of oils, detergents, surfactants, biocides, lubricants, anti-corrosive agents, and other potentially toxic ingredients. Typically, these fluids can cause a variety of health hazards, but mainly have negative effects on the skin, respiratory system, and can cause cancer. The two types of skin diseases associated with metal working fluids are dermatitis and acne. Cleaning fluids mist or aerosol can irritate the lungs, throat, and nose. Certain types of cancers can also be associated with frequent exposure to cleaning fluids which include cancer of the rectum, pancreas, larynx, skin, scrotum, and bladder.

Implementation of BMPs would ensure that hazardous materials used on-site during operation would neither be released into the environment nor expose operational personnel to hazardous materials. Overall, adherence to regulations and standard protocols during the storage, transportation, and usage of any hazardous materials, and implementation of **Mitigation Measures MM 4.9-1** through **4.9-9** would minimize or reduce potential impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials, to less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.9-1** through **MM 4.9-3**, as provided above, **MM 4.4-3** (Section 4.3, *Biological Resources*, for full mitigation measure text) and **MM 4.7-8** would be required (Section 4.7, *Geology and Soils*, for full mitigation measure text).

- MM 4.9-4** The Project proponent shall continuously comply with the following:
- If suspect materials or wastes of unknown origin are discovered during construction on the Project site, which is thought to include hazardous waste materials the following shall occur:
- a. All work shall immediately stop in the vicinity of the suspected contaminant;
 - b. Project Construction Manager shall be notified;
 - c. Area(s) shall be secured as directed by the Project Construction Manager ;

- d. Notification shall be made to the Kern County Environmental Health Services Division/Hazardous Materials Section for consultation, assessment, and appropriate actions; and
- e. Copies of all notifications and correspondence shall be submitted to the Kern County Planning and Natural Resources Department.

MM 4.9-5 The following note shall appear on all final maps and grading plans:

“If during grading or construction, any plugged and abandoned or unrecorded wells are uncovered or damaged, the California Department of Geologic Energy Management Division will be contacted to inspect and approve any remediation required.”

MM 4.9-6 Prior to grading or excavating, the Underground Service Alert One-call center shall be contacted. The proposed excavation area shall be delineated with white marking paint or with other suitable markers such as flags or stakes at least two days prior to commencing any excavation work. A “Dig Alert” ticket number would be issued at the time Underground Service Alert is contacted. Excavating is not permitted without this ticket number and is valid for twenty-eight days. Underground Service Alert would notify its member utilities having underground facilities in the area. Underground Service Alert does not notify nonmember utilities or energy companies, or Caltrans.

MM 4.9-7 Prior to the issuance of both grading and building permits, the Project proponent shall prepare notification requirements should the rupturing of a pipeline occur during excavation and construction activities, the Kern County Fire Department and Pacific Gas and Electric Company (PG&E) should be contacted immediately. Natural gas transmission pipeline rupture most often indicates an emergency situation and 9-1-1 should be dialed. If an emergency is not indicated, the Kern County Fire Department Meadows Field Station 62, located at 1652 Sunnyside Court, should be contacted at (661) 393-9311. Or at the non-Emergency telephone number (661) 324-6551. The Project proponent shall follow all safety and cleanup regulations.

MM 4.9-8 Prior to the issuance of grading permits, any known or unknown on-site water wells not to be used for irrigation or industrial purposes shall be destroyed in accordance with California Well Standards as governed by the California Department of Water Resources and permit requirements of the Kern County Environmental Health Services Division.

MM 4.9-9 Prior to the issuance of building permits, the Project proponent shall prepare notification requirements should asbestos containing materials be identified during construction. The San Joaquin Valley Air Pollution Control District shall be contacted for removal and disposal procedures. These procedures shall be followed

in order to eliminate asbestos exposure to construction workers and surrounding workers and residents.

Level of Significance After Mitigation

With implementation of **MM 4.9-1** through **MM 4.9-9**, and **MM 4.7-8**, impacts would be less than significant after mitigation.

Impact 4.9-3: The Project would emit hazardous emissions or involves handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

The Project site is not located within 0.25-mile of any school. The nearest school to the Project site is Wingland Elementary School, located approximately 0.82 miles southeast of the Project site. Therefore, there would be no impact related to hazardous emissions within 0.25-mile of a school.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

There would be no impact.

Impact 4.9-4: The Project would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.

A review of the CalEPA, DTSC latest list of parcels relating to hazardous wastes pursuant to Section 65962.5 of the California Government Code indicates the Project site is not listed. Additionally, the Phase 1 ESA that was conducted by AEC did not find evidence of RECs or CREC in connection with the Project site. Therefore, there would be no impact.

Mitigation Measures

No mitigation would be required.

Level of Significance after Mitigation

There would be no impact.

Impact 4.9-5: For a Project located within the adopted Kern County Airport Land Use Compatibility Plan, the Project would result in a safety hazard or excessive noise for people residing or working in the Project area.

The nearest aircraft operation facility identified by the Kern County ALUCP is the Meadows Field Airport, a public airport located approximately 0.6 mile west of the Project site. The proposed Project is located within the SOI of the Meadows Field Airport. Meadows Field Airport is recognized as an Airport Influence Area, in which policies of the Kern County ALUCP apply to the proposed Project, further described in Section 4.11, *Land Use and Planning*. The site's proximity to the Meadows Field Airport requires additional oversight given the overlain H (Airport Approach Height) Combining District, which is intended to minimize aviation hazards by regulating land uses, restricting the height of buildings and vegetation, and specifying design criteria necessary to promote aviation safety and to implement the requirements of the adopted ALUCP. The proposed project has a maximum height of 56 feet which conforms to Section 19.36.080, Height Limits, in the M-1 Base District which states the following development standards relevant to the project site:

- a. Buildings and structures shall not exceed six (6) stories or seventy-five (75) feet. , unless the building is set back from each street, alley, and lot line at least one (1) foot for each three (3) feet of height above six (6) stories or seventy-five (75) feet.*
- b. No building or structure shall exceed ten (10) stories or one hundred and thirty-five (135) feet.*

However, Section 19.76.080, Height Limits, of the H Combining District states no building, structure, plant, or tree in an H District shall exceed thirty-five (35) feet in height, except as may be approved pursuant to Sections 19.76.130 and 19.76.140 of the H Combining District chapter, and in no case shall the height exceed the height allowed by the base district with which the H District is combined. Section 19.76.130 lists the Site Development Plan Review process that the proposed project is currently undergoing and Section 19.76.140 lists the minimum requirements for the Site Development Plan Review application, which includes the following particular condition related to height:

- E. For any proposed structure or vegetation that will exceed a height of thirty-five (35) feet, a letter from the Federal Aviation Administration which shall state that the proposed development does not constitute a hazard to air traffic and does not violate any federal regulations. The letter shall also include any special conditions imposed by the Federal Aviation Administration.

The project proponent has secured letters from the FAA that indicate Determinations of No Hazards to Air Navigation for multiple coordinates within the proposed project site boundary (Appendix G.2). Safety hazards are not otherwise anticipated for people residing or working in the Project area with respect to the Project's proximity to an airport. Facilities developed are not expected to exceed FAA height limits. The Project would not develop structures that could impact operations associated with the airport. Furthermore, implementation of **Mitigation Measure**

MM 4.9-10 would mitigate potential impacts by ensuring compliance with requirements and regulations of the FAA and the County's Planning and Natural Resources Department. Impacts would be less than significant.

Mitigation Measures

Implementation of **MM 4.9-10** would be required.

MM 4.9-10 Prior to issuance of building and grading permits for portions of the Project that meet the Federal Aviation Administration's noticing requirements, the Project proponent/operator shall comply with the following:

- a. Submit Form 7460-1 (Notification of Proposed Construction or Alteration) to the Federal Aviation Administration, in the form and manner prescribed in Code of Federal Regulation 77.17.
- b. Obtain a Federal Aviation Administration issued "Determination of No Hazard to Air Navigation" or make the Federal Aviation Administration's recommended changes to the Project.
- c. Provide documentation to the Kern County Planning and Natural Resources Department demonstrating the Project would comply with the Kern County Zoning Ordinance Figure 19.08.160 that all Project components in the flight area would create no significant military mission impact and a copy of the site plan has been provided to the appropriate military authority responsible for operations in the flight area.
- d. Provide documentation to the Kern County Planning and Natural Resources Department demonstrating that a copy of the final site plan has been provided to the operators of Meadows Field Airport.

Level of Significance after Mitigation

With implementation of **Mitigation Measure MM 4.9-10**, impacts would be less than significant after mitigation.

Impact 4.9-6: The Project would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

Local access to the Project site is available via Airport Drive and Boughton Drive. Direct access to the Project site is located off Airport Drive, which is the eastern portion of the proposed Project site. The Project site is situated approximately 1.4 miles northeast of SR 99. Regional access to the Project site is provided by SR 99 and Merle Haggard Drive via Airport Drive. In the event of an emergency, emergency vehicles would most likely access the site via SR 99, then exit onto Airport Drive. The nearest Kern County Fire Department fire station is located approximately 1.09 miles southeast of the Project site. The Bakersfield Police Department is located approximately 4.54 miles south of the Project site.

The Project site falls within plans such as Kern County Fire Department's Ready, Set, Go! Plan, which provides guidance for evacuation during a wildfire event (KCFD 2020), as well as the County's Emergency Operations Plan, which identifies an emergency management program, provides standard operating procedures, and provides for public awareness and education. The above emergency response plans provide guidelines on emergency preparedness and outlines the responsibilities of all agencies during an emergency, however, do not identify evacuation routes. Thus, the proposed Project would not physically interfere with the adopted emergency plans identified above. Additionally, the Project would adhere to any applicable guidelines set forth in the plans and not conflict with the processes or procedures outlined by the plans.

The Project site is within an identified emergency evacuation route within the evacuation plan for potential Lake Isabella Dam failure. Based on the plan, (adopted December 2009), a dam failure would result in flooding the Kern Canyon (Kern River) and greater Bakersfield area, which would include an evacuation of 260,000 people with the largest group of evacuees having access to a vehicle (KCFD 2009). Evacuation routes within the vicinity of the Project include routes traveling north of Kern River, which is approximately two miles south of the Project site, and onto Airport Drive to Merle Haggard Drive to access temporary parking and staging zones before heading west to SR 99.

The Project would generate construction trips, including the movement of oversize equipment, and the potential for roadway lane closures exist to the site during construction. These factors could temporarily increase the daily traffic volumes on surrounding local roadways and at intersections. It is anticipated that emergency access would be maintained at all times, and appropriate detours would be provided, as necessary. Additionally, the Project would implement **Mitigation Measure MM 4.9-11**, which requires the development and implementation of a Fire Safety Plan, ensuring that procedures and emergency fire precautions are implemented that can also be applied should other emergency evacuations occur, such as dam failure discussed above.

While the Project would not require closures of public roads—which could inhibit emergency vehicle access—during construction, heavy construction-related traffic could interfere with emergency response or emergency evacuation procedures in the event of an emergency, such as a wildfire or a chemical spill. Heavy construction-related traffic could also interfere with emergency response to other uses in the vicinity and, therefore, could represent a significant impact. As described in Section 4.17, *Transportation and Traffic*, implementation of **Mitigation Measure MM 4.17-4** requires the preparation of a Construction Traffic Control Plan. Implementation of this mitigation measure would minimize the potential for the Project to interfere with an adopted emergency response plan or emergency evacuation plan.

The proposed Project would not interfere with any known existing emergency response plans, emergency vehicle access, or personnel access to the Project site. The Project site is located in an area with mixed uses and existing access road that are available to access the property in the event of an emergency, as well as proposes new road improvements along Airport Road, Boughton Drive, and Hanger Way. Impacts related to impairment of the implementation of, or physical interference with, an adopted emergency response plan or emergency evacuation plan would be less than significant with mitigation.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.9-11** and **MM 4.17-4** (Section 4.17, *Transportation*) would be required.

MM 4.9-11 Prior to the issuance of grading permits, the project proponent shall develop and implement a Fire Safety Plan for use during construction and operation.

The project proponent shall submit the plan, along with maps of the project site and access roads, to the Kern County Fire Department for review and approval. The Fire Safety Plan shall contain notification procedures and emergency fire precautions, including, but not limited to, the following:

- a. All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order.
- b. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. These vehicle types shall maintain their factory-installed (type) mufflers in good condition.
- c. Fire rules shall be posted on the project bulletin board at the contractor's field office and in areas visible to employees.
- d. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.
- e. Personnel shall be trained in the practices of the fire safety plan relevant to their duties. Construction and maintenance personnel shall be trained and equipped to extinguish small fires to prevent them from growing into more serious threats.
- f. The project proponent shall make an effort to restrict the use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to periods outside of the official fire season. When the above tools are used, water tanks equipped with hoses, fire rakes, and axes shall be easily accessible to personnel.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.9-11** and **4.17-4** (Section 4.17, *Transportation and Traffic*, for full mitigation measure text), impacts would be less than significant after mitigation.

Impact 4.9-7: The Project would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

According to the Fire Hazard Severity Zones map published by the California Department of Forestry and Fire Protection (CAL FIRE), the Project site is located approximately 1.10 miles from a High Fire Hazards Severity Zone (FHSZ) in an SRA, located northeast of the site. As described further in Section 4.20, *Wildfire*, wildfire associated in the High FHSZ are anticipated to prevail northwest away from the Project site. According to the 2007 CAL FIRE, Kern County FHSZ Maps for the LRAs, the project site is classified as LRA Moderate and LRA Unzoned. Moderate zones are typically wildland supporting areas of low fire frequency and relatively modest fire behavior. An Unzoned designation indicates that the area is urbanized and not susceptible to wildland conflagrations.

The Project proponent would implement **Mitigation Measure MM 4.9-11**, which would require the preparation and submittal of a Fire Safety Plan to the Kern County Fire Department for review and approval. The purpose of the Fire Safety Plan would be to eliminate causes of fire, prevent loss of life and property by fire, to comply with County and County Fire Protection District standards and to comply with the Occupational Safety and Health Administration standard of fire prevention, 29 CFR 1910.39. The Fire Safety Plan would address fire hazards of the different components of the Project and would include BMPs to reduce the potential for fire and extinguishment techniques if a fire were to occur. Additionally, the Project would implement **Mitigation Measure MM 4.15-1**, which requires the Project proponent to work with the County to determine how the use of sales and use taxes from construction of the project can be maximized. This would ensure public facilities, such as the fire department, are supported by the Project, as discussed further in Section 4.15, *Public Services*.

The Project site is located within an urbanized area. While the Project is not anticipated to significantly increase the risk of wildfire, **Mitigation Measures MM 4.9-11** and **4.15-1** would be implemented to ensure a Fire Safety Plan for construction and operation of the Project is incorporated as part of the Project as well as ensure that the use of sales and use taxes from construction are maximized. With mitigation, potential impacts from wildfire would be reduced to a less than significant level.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.9-11** and **MM 4.15 1** (Section 4.15, *Public Services*) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.9-11** and **4.15-1**, impacts would be less than significant after mitigation.

Impact 4.9-8: The Project would generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste. Specifically, the Project would exceed the following qualitative threshold: The presence of domestic flies, mosquitoes, cockroaches, rodents, and/or any other vectors associated with the Project is significant when the applicable enforcement agency determines that any of the vectors:

- Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; and
- Are associated with design, layout, and management of Project operations; and
- Disseminate widely from the property; and
- Cause detrimental effects on the public health or well-being of the majority of the surrounding population.

The proposed Project will consist of the construction of two single-story buildings, including dedicated office space. The construction and operational phases of the Project are expected to bring a number of workers on-site. It is expected that the workers during both phases will produce a small quantity of waste which would be stored in enclosed containers, then transported to and disposed of at approved disposal facilities. Typically, waste that would attract vectors, such as flies, cockroaches, or rodents, to the Project site would consist of food-related waste. Additionally, standing water, agricultural products, and agricultural waste can attract mosquitoes, flies, cockroaches, and rodents.

During the construction phase, which is expected to occur over a period of 16 months, it is expected to bring a construction workforce of up to 100 individuals. Throughout this time, the construction workers will mostly bring food-related waste, which could attract a variety of vectors. Additionally, the operational phase is expected to employ approximately 437 employees over the course of three shifts. The proposed facility would operate 24 hours a day, 365 days a year. Despite the number of employees working on-site, the amount of waste that could attract vectors is expected to be small.

Regarding other types of waste that have the potential to attract vectors, both phases of the Project are not expected to produce them. These other types of vector-attracting waste consist of standing water, agricultural products, and agricultural waste. Underground retention basins are proposed as part of the Project, which are not expected to attract vectors. The Project is not agricultural in nature and will not produce any agricultural products or agricultural waste. To mitigate any potential impacts, **Mitigation Measure MM 4.9-12** would be implemented, which would consist of establishing a long-term trash abatement program for construction, operation, and maintenance. Additionally, **Mitigation Measure MM 4.9-13** would require the preparation and implementation of a Vector Control Plan. As a result of the small amount of waste being produced on-site and the implementation of **Mitigation Measure MM 4.9-12** and **4.9-13**, the impacts on generating vectors would be less than significant.

Mitigation Measures

MM 4.9-12 Prior to issuance of building permits, a long-term trash abatement program shall be established for construction, operations and maintenance. Trash and food items shall be contained in closed containers and removed weekly:

- a. Trash and food items shall be contained in closed containers to be locked at the end of the day and removed at least once per week to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.

MM 4.9-13 Prior to the issuance of building permits, the project proponent shall prepare a Vector Control Plan and submit it to the Kern County Environmental Health Services Department and Kern Mosquito Abatement District for review and approval. The Plan shall include best management practices such as: good housekeeping measures to minimize harborage for vectors. Further controls may include the use of traps or other abatement controls, and/or the use of a licensed pest management service if needed.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.9-12** and **4.9-13**, impacts would be less than significant after mitigation.

4.9.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

As described in Chapter 3, *Project Description*, multiple projects are proposed throughout Kern County. As shown in Chapter 3, *Project Description*, other projects are either operational, in construction, or proposed within the region. The geographic scope of impacts associated with hazardous materials and wildfire generally encompasses a 0.25-mile-radius area around the project site. Similar to other potential impacts, such as those related to geology and soils, risks related to hazards and hazardous materials are typically localized in nature since they tend to be related to onsite existing hazardous conditions and/or hazards caused by the Project's construction or operation. A geographic scope of a 0.25-mile-radius area also coincides with the distance used to determine whether hazardous emissions or materials would have a significant impact upon an existing or proposed school, as discussed above. Given the existing topography, lack of vegetation for fuel, and other existing development surrounding the Project site, a 0.25-mile radius for cumulative fire hazard impacts is appropriate.

Potential impacts stemming from the routine transport, use, or disposal of hazardous materials would be considered less than significant. As stated previously, the proposed Project would use typical hazardous materials during the construction phase such as gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, ethylene glycol, dust palliative, herbicides, and welding materials/supplies. Use of these hazardous materials would be subject to the Material

Disposal and Solid Waste Management Plan and other measures to limit releases of hazardous materials and wastes. During the operation phase, the proposed Project would also produce a small amount of hazardous waste associated with maintenance activities, which could include paint, solvents, cleaners, and waste oil. These materials will be stored and disposed of according to applicable regulations. With the implementation of **Mitigation Measures MM 4.9-1** through **4.9-3**, which consist of the Project operator preparing and maintaining a Spill Prevention Control and Countermeasures Response Plan and Hazardous Materials Business Plan as well as properly storing and managing any hazardous materials, the potential impacts would be less than significant. Additionally, **Mitigation Measure MM 4.7-8** would require the preparation of a Soil Erosion and Sedimentation Control Plan to mitigate potential loss of soil and erosion, addressing drainage and runoff (Section 4.7, *Geology and Soils*).

Regarding potential impacts to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment, impacts would be less than significant. As described previously, both phases of the proposed Project would have the potential to accidentally release hazardous materials into the environment. These include lubricants, paint, solvents, cleaners, and fuel. To mitigate any potential impacts, **Mitigation Measure MM 4.9-1** through **4.9-9** and **MM 4.7-8** would be implemented.

For potential impacts involving the location of the Project and its proximity to an existing or proposed school, being located on a site potentially containing hazardous materials pursuant to Government Code Section 65962.5 and being located in an adopted Kern County ALUCP, the proposed Project would be less than significant. Although the Project site is with the SOI of the Meadows Field Airport as identified in the Kern County ALUCP, implementation of **Mitigation Measure MM 4.9-10** would ensure the proposed Project would coordinate with FAA and the County's Planning and Natural Resources Department noticing requirements. As such, the Project site would not be within the proximity of any of these locations. As result, impacts would be considered less than significant, and no mitigation is required.

Potential impacts from the Project regarding interference with an adopted emergency response plan or emergency evacuation plan would be less than significant. Direct access to the Project site would come from Airport Drive, and emergency vehicles would most likely use State Route 99 to Airport Drive to access the Project site in case of an emergency. As proposed, the Project site is not expected to interfere with any known existing emergency response plans. To mitigate any potential impacts, the Project would require implementation of **Mitigation Measure MM 4.17-4**, which requires preparation of a Construction Traffic Control Plan. Additionally, the Project would implement **Mitigation Measure MM 4.9-11**, which requires the development and implementation of a Fire Safety Plan, ensuring that procedures and emergency fire precautions are implemented. Impacts would be considered less than significant, and no mitigation would be required.

The potential impacts from the Project that would expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires would be considered less than significant. The proposed Project is not located within or near SRAs or land classified as very high fire hazard severity zones. Though the Project is located in an urbanized

area, any potential impacts would be mitigated by **Mitigation Measures MM 4.9-11** and **MM 4.15-1** from Section 4.15, *Public Services*. Thus, impacts would be less than significant.

Regarding the potential impacts stemming from the Project generating vectors or having a component that includes agricultural waste, impacts would be considered less than significant. The proposed Project is an industrial Project and would not have an agricultural component and would not produce agricultural waste. However, up to 100 employees will be on-site during the construction phase and approximately 437 employees will be present during the operational phase, though not all at once. The employees on-site will produce waste that has the potential to attract vectors such as flies, mosquitoes, and rodents. To mitigation any potential impacts, **Mitigation Measure MM 4.9-12** would be implemented, which consists of establishing a long-term trash abatement program for the construction, operation, and maintenance phases. **Mitigation Measure MM 4.9-13** would also be implemented, requiring the preparation of a Vector Control Plan. With the implementation of **Mitigation Measures MM 4.9-12** and **4.9-13**, impacts would be less than significant.

Conformance with existing State and County regulations, as well as implementation of **MM 4.4-3** (Section 4.3, *Biological Resources*, for full mitigation measure text), **MM 4.7-8**, of Section 4.7, *Geology and Soils* (Soil Erosion and Sedimentation Control Plan), **MM 4.9-1** through **MM 4.9-13**, **MM 4.15-1** of Section 4.15, *Public Services* (Fire Safety Plan), and **MM 4.17-4** of Section 4.17, *Transportation* (Construction Traffic Control Plan), would further reduce the potential for cumulative impacts. In addition, implementation of appropriate safety measures during construction of the Project, as well as any other cumulative Project, would reduce the impact to a level that would not contribute to cumulative effects. Therefore, impacts related to hazardous materials would not be cumulatively significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.4-3** (Section 4.3, *Biological Resources*), **MM 4.7-8** (Section 4.7, *Geology and Soils*), **MM 4.9-1** through **MM 4.9-13**, **MM 4.15-1** (Section 4.15, *Public Services*), and **MM 4.17-4** (Section 4.17, *Transportation and Traffic*) would be required.

Level of Significance After Mitigation

With the implementation of **Mitigation Measure MM 4.4-3** (Section 4.3, *Biological Resources*), **MM 4.7-8**, **MM 4.9-1** through **MM 4.9-13**, **MM 4.15-1**, and **MM 4.17-4**, cumulative impacts would be less than significant after mitigation.

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Section 4.10

Hydrology and Water Quality

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Section 4.10

Hydrology and Water Quality

4.10.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the environmental and regulatory settings regarding hydrology and water quality. It also addresses potential impacts of the proposed IPG Industrial Project (Project) on hydrology and water quality and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the 2023 Preliminary Drainage Report for Airport and Boughton Drive and the 2023 Water Supply Assessment for Warehousing at Airport Drive and Boughton Drive, both prepared by Kier and Wright Civil Engineers and Surveyors, Inc. (Kier + Wright) (Appendix H.1 and H.2, respectively). Will serve letters from North of River Sanitary District and Oildale Mutual Water Company (OMWC) are attached as Appendix H.3.

4.10.2 Environmental Setting

Regional Setting

The California Department of Water Resources (DWR) has divided the state into 10 Hydrologic Regions. The Project site is located in the southern portion of the San Joaquin Valley within the Tulare Lake Hydrologic Region (Tulare Lake Basin, or Basin). The Basin is a triangle-shaped, topographically closed basin bordered to the east by the Sierra Nevada, to the west by the Coast Ranges, and to the south by the Tehachapi Mountains.

The Project site is entirely within the OMWC service area and relies on OMWC as its public water supplier. OMWC groundwater is drawn from the Kern County Subbasin (Subbasin) within the Tulare Lake Hydrologic Region of the San Joaquin Valley Basin (**Figure 4.10-1**). The Subbasin is overseen by the basin manager of the Kern Groundwater Authority (KGA). The Subbasin is not adjudicated.

Tulare Lake Hydrologic Region

The Tulare Lake Basin is ranked as high priority in a statewide ranking of groundwater importance. The Basin comprises the drainage area of the San Joaquin Valley south of the San Joaquin River encompassing approximately 16,800 square miles (**Figure 4.10-1**).

Climate

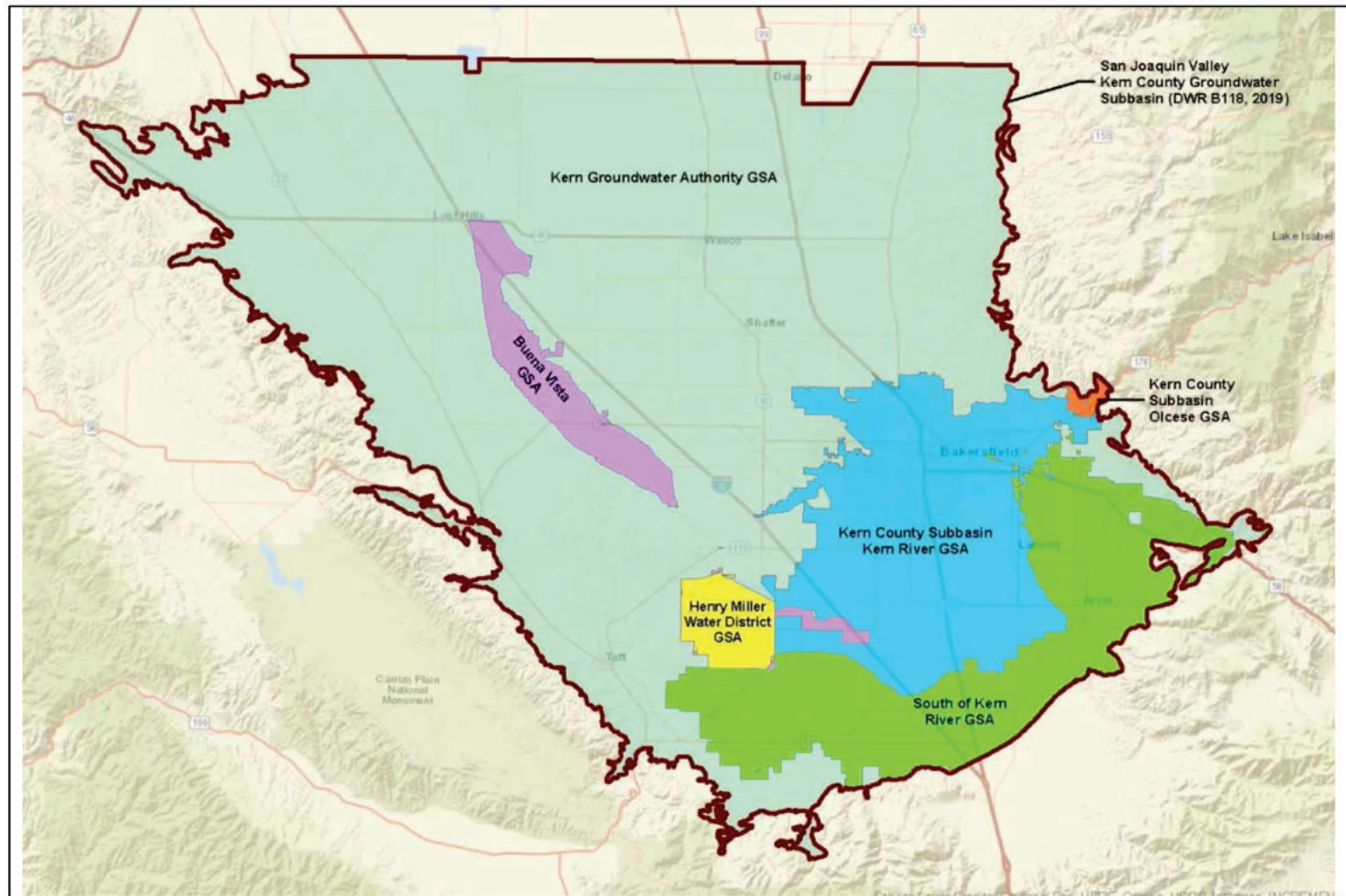
Climate in the region is arid to semiarid with average annual precipitation of 6 to 7 inches per year. On average, the valley floor receives 8.32 inches of precipitation per year, most of which falls between November and April. Average temperatures are relatively high, and total evaporation exceeds total precipitation. Winter is generally mild, but an occasional freeze does occur and may

cause substantial agricultural damage. The majority of rainfall occurs between January and March. Summers are dry with high temperatures and low humidity. Average high temperatures range from 57.4 degrees Fahrenheit (°F) in January to 98.6°F in July. Average low temperatures range from 38.5°F in December and January to 69.2°F in July.

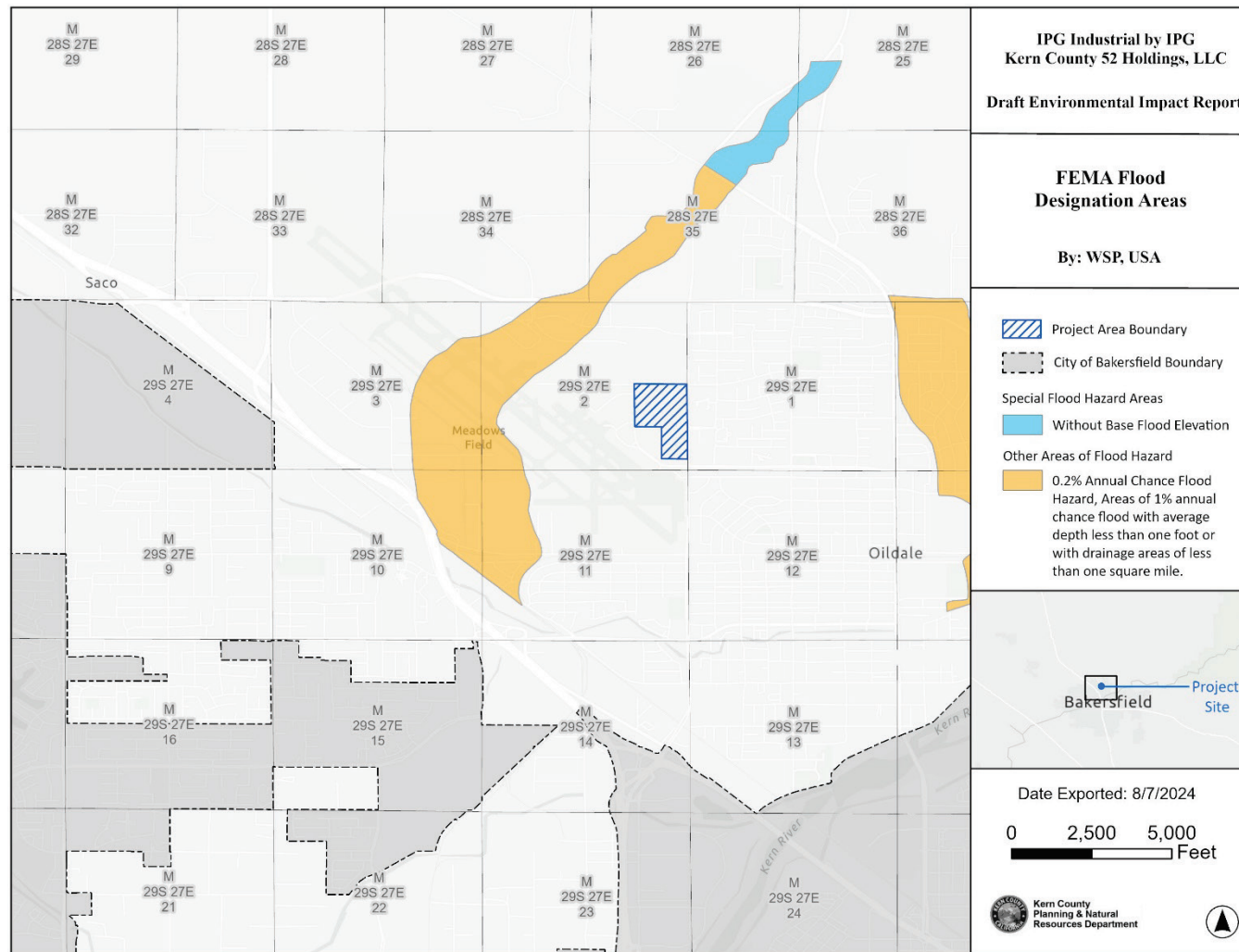
A “water year” in California runs from September 30 to October 1 of the following year. California typically receives 50 percent of its precipitation in the months of December, January, and February in the form of snow in the Sierras. The snowpack in the Sierras typically stores water throughout the winter months and then releases it beginning in the spring (National Weather Service and National Oceanic and Atmospheric Administration, 2023).

Soil Types and Erosion

The Subbasin is bounded to the north by the Tulare Lake and Tule Subbasin, to the east and south by crystalline bedrock of the Sierra Nevada and San Emigdio Mountains, and to the west by the marine sediments of the San Emigdio Mountains and Coast Ranges. Continental deposits shed from the surrounding mountains form an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. Sediments that comprise the shallow intermediate depth water-bearing deposits in the groundwater subbasin are primarily continental deposits of Tertiary and Quaternary age. From oldest to youngest the deposits are the Olcese and Santa Margarita Formations; the Tulare Formation (western subbasin) and its eastern subbasin equivalent, the Kern River Formation; older alluvium/stream deposits; and younger alluvium and coeval flood basin deposits. The greatest thickness of unconfined aquifer occurs along the eastern subbasin margin. The highest specific yield values are associated with sediments of the Kern River Fan west of Bakersfield (Appendix F.1).

Figure 4.10-1: Department of Water Resources Designated Groundwater Basins and Subbasins

Source: Kier + Wright, 2024

Figure 4.10-2: Federal Emergency Management Area Flood Designation Areas

Site Hydrology

Surface Hydrology and Drainage

The Project site can be characterized as flat; however, outside of leveled fields and orchards, the area is better described as an uneven plain consisting of extensive alluvial fans, debris flow, and over-bank deposits. The elevation of the Project site ranges between approximately 495 feet above mean sea level and approximately 540 feet with a gentle northeasterly slope. Project site runoff follows topography and drains to the northeast across the site toward Airport Drive. There are no existing stormwater drainage systems on the Project site.

Soil Types and Erosion

According to the Preliminary Drainage Report prepared for the Project (Kier + Wright, 2023; Appendix H.1), the Project site consists of approximately 94% Delano sandy loam (1 to 5% slopes) and 6% Kimberlina-Urban land-Cajon complex (0 to 2% slopes). These soil groups for the Project site are Type C, which includes granular soils in which particles do not stick together and cohesive soils with a low unconfined compressive strength (Occupational Safety and Health Administration, 2024).

As further discussed in Section 4.7, *Geology and Soils*, the Project area is underlain by Quaternary old alluvial deposits. Previous regional mapping identifies the deposits at the site as Pleistocene (Quaternary) Non-Marine (continental) deposits. Undocumented artificial fills consisting of berms and stockpiles are located across large portions of the site. The undocumented fill is interpreted to be dry and loose. The Quaternary-aged old alluvium was found to consist mostly of silty sand and sandy silt with scattered discontinuous beds of sandy clay and clayey sand. The upper 5 feet of the alluvium was generally found to be dry and loose to medium dense, however, at depth it was generally found to be dense to very dense or very stiff to hard and slightly moist to moist in-place.

Floodplains

A Flood Insurance Rate Map (FIRM) is an official map prepared by the Federal Emergency Management Agency (FEMA) to delineate both the special flood hazard areas and the flood risk premium zones applicable to a community (**Figure 4.10-2**). FEMA designates flood zones using a series of letters; for example, Zone A indicates areas of the 100-year flood where base flood elevations are not known, Zone AE indicates areas where 100-year flood elevations have been calculated, and Zone X indicates areas that experience minimal flooding. The Project area is located in one FIRM area (FIRM 06029C1825F). The FIRM area is designated as Zone X and is outside of the 0.2% annual chance floodplain.

Groundwater Resources

Kern County Groundwater Subbasin

The Subbasin, which has a surface area of approximately 1,945,000 acres (3,040 square miles), is the specific groundwater subbasin in which the Project is situated. The KGA is the Subbasin's principal groundwater management agency.

The San Joaquin Valley represents the southern portion of the Great Central Valley of California. The San Joaquin Valley is a structural trough up to 200 miles long and 70 miles wide, filled with up to 32,000 feet of marine and continental sediments deposited during periodic inundation by the Pacific Ocean and by erosion of the surrounding mountains respectively. Continental deposits shed from the surrounding mountains forming an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. This depositional axis is slightly west of the series of rivers, lakes, sloughs, and marshes that mark the current and historic axis of surface drainage in the San Joaquin Valley. Water-bearing formations in the Subbasin are found in the shallow to intermediate depths of the groundwater Subbasin and are primarily continental deposits of Tertiary and Quaternary age.

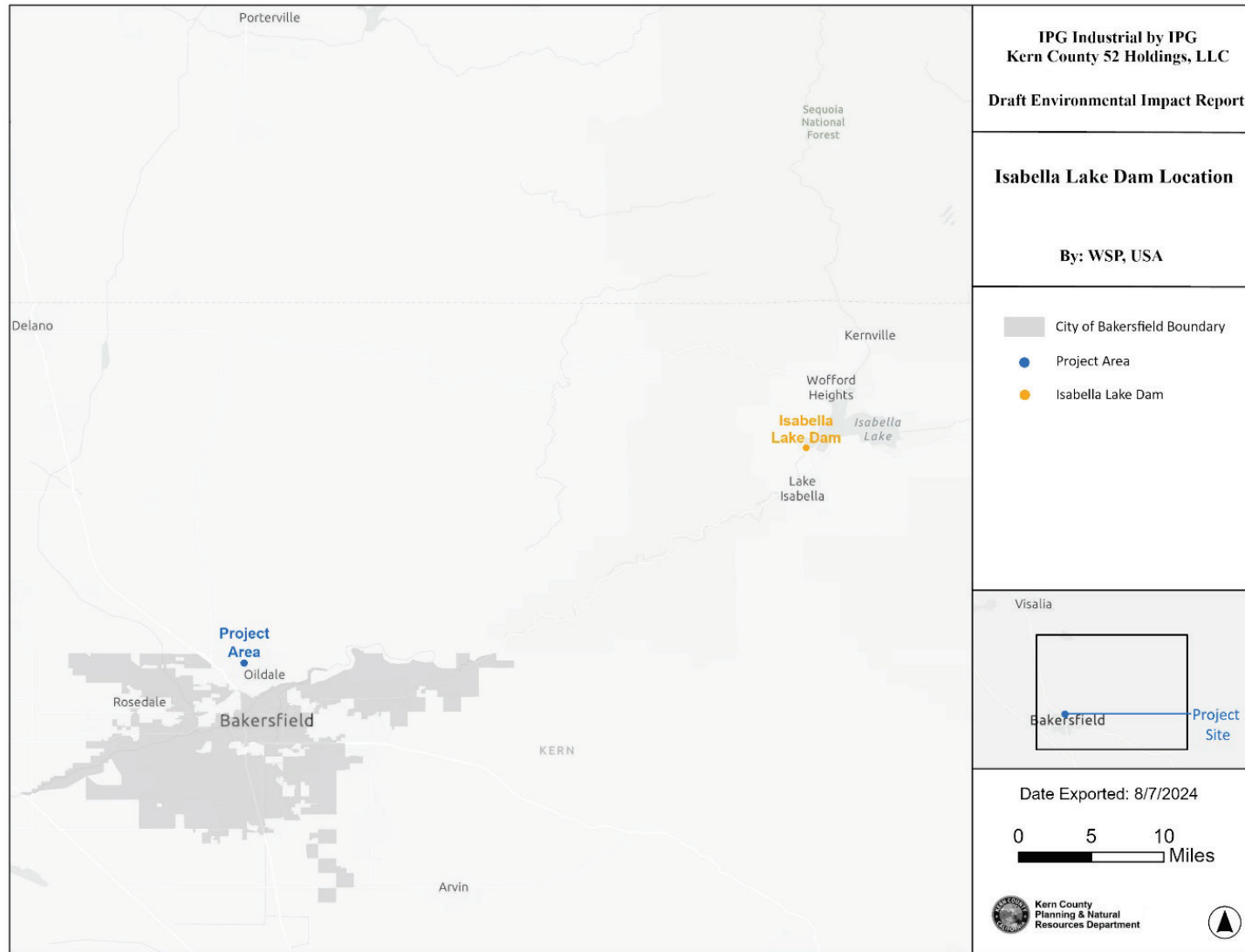
The Project area is located in the southeastern portion of the Subbasin in the central portion of unincorporated Kern County, California, approximately 1.7 miles north of the incorporated City of Bakersfield and 3.1 miles east of the incorporated City of Shafter. The water-bearing unit is the Tulare Formation, which contains up to 2,200 feet of interbedded, oxidized to reduced sands, and gypsiferous clays and gravels derived predominantly from Coast Range sources. Water quality is characterized as primarily sodium sulfate to calcium sodium sulfate type (DWR, 2006).

DWR has identified the Subbasin as a “critically overdrafted basin.” There are no Adjudicated Areas within the Subbasin. The Subbasin was determined or classified to be a high-priority basin, which triggers the requirement of a Groundwater Sustainability Plan (GSP) under the Sustainable Groundwater Management Act (SGMA). According to the GSP prepared by the KGA, the Subbasin as a whole has an overdraft of 324,326 acre-feet per year over the baseline conditions. However, it is forecasted that the Subbasin will achieve sustainability by 2040 with an estimated 42,144 acre-feet of annual surplus (KGA, 2022).

Dam Failure, Seiche, and Tsunami

The U.S. Army Corps of Engineers prepares flood inundation maps in the event of a dam failure, including the closest dam (the Lake Isabella Dam east of Bakersfield). The Lake Isabella Dam is outside of dam inundation areas as defined by the Kern County General Plan (KCGP), as it is over 30 miles to the east of the Project area and the flood waters would not reach the Project area because of its distance and topography (**Figure 4.10-3**). As further described in Section 4.20, *Wildfire*, the Project site is in the area of a defined evacuation route for Lake Isabella Dam failure and contains several entrances on Airport Drive, an established evacuation route.

A tsunami is a series of ocean waves generated by sudden displacements in the sea floor, landslides, or volcanic activity. A seiche is a standing wave in an oscillating body of water. The Project area is approximately 100 miles east of the Pacific Ocean and there are no enclosed bodies of water within the Project area. Therefore, the risk for tsunami or seiche in the Project area is very low.

Figure 4.10-3: Lake Isabella Dam Location from Project Area

4.10.3 Regulatory Setting

Federal

Clean Water Act (33 United States Code § 1321 et seq.)

The Clean Water Act (CWA) (33 United States Code Section 1251 et seq.), formerly the Federal Water Pollution Control Act of 1972, was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the United States. The CWA required states to set standards to protect, maintain, and restore water quality through the regulation of point source and certain nonpoint source discharges to surface water. Those discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). In California, NPDES permitting authority is delegated to, and administered by, the nine Regional Water Quality Control Boards (RWQCBs). The Project site is within the Central Valley RWQCB. Projects that disturb one or more acres, including the proposed Project, are required to obtain NPDES coverage under construction general permits.

Section 401, Water Quality Certification

Section 401 of the CWA requires that, prior to issuance of any federal permit or license, any activity (including river or stream crossing during road, pipeline, or transmission line construction) which may result in discharges into waters of the United States must be certified by the state, as administered by the RWQCB. This certification ensures that the proposed activity does not violate state and/or federal water quality standards.

Section 402, National Pollutant Discharge Elimination System

Section 402 of the CWA authorizes the State Water Resources Control Board (SWRCB) to issue a NPDES General Construction Storm Water Permit (Water Quality Order 2009-0009-DWQ), referred to as the “General Construction Permit.” Construction activities can comply with and be covered under the General Construction Permit provided that they meet the following criteria:

- Develop and implement a Storm Water Pollution Prevention Plan (SWPPP) which specifies best management practices (BMPs) that will prevent all construction pollutants from contacting stormwater and intend to keep all products of erosion from moving off-site into receiving waters.
- Eliminate or reduce non-stormwater discharges to storm sewer systems and other waters of the United States.
- Perform inspections of all BMPs.

NPDES regulations are administered by the Central Valley RWQCB at the Project site.

Section 303, Water Quality Standards and Implementation Plans

Section 303(d) of the CWA (33 United States Code 1250, et seq., at 1313(d)) requires states to identify “impaired” water bodies as those which do not meet water quality standards. States are required to compile this information in a list and submit the list to the U.S. Environmental Protection Agency (EPA) for review and approval. This list is known as the Section 303(d) list of impaired waters. As part of this listing process, states are required to prioritize waters and watersheds for future development of total maximum daily load requirements. The SWRCB and RWQCBs have ongoing efforts to monitor and assess water quality, to prepare the Section 303(d) list, and to develop total maximum daily load requirements.

The Safe Drinking Water Act of 1974 (42 United States Code § 300f et seq.)

The Safe Drinking Water Act was originally passed by Congress in 1974 to protect public health by regulating the nation’s public drinking water supply. The law was amended in 1986 and 1996 and requires many actions to protect all waters actually or potentially designed for drinking use, whether from aboveground or underground sources, including rivers, lakes, reservoirs, springs, and groundwater wells (EPA 2016). The act authorizes the EPA to set national health-based standards for drinking water to protect against both naturally occurring and man-made contaminants that may be found in drinking water.

National Flood Insurance Program

FEMA is responsible for managing the National Flood Insurance Program (NFIP), which makes federally backed flood insurance available for communities that agree to adopt and enforce floodplain management ordinances to reduce future flood damage. The NFIP, established in 1968 under the National Flood Insurance Act, requires that participating communities adopt certain minimum floodplain management standards, including restrictions on new development in designated floodways, a requirement that new structures in the 100-year flood zone be elevated to or above the 100-year flood level (known as base flood elevation), and a requirement that subdivisions be designed to minimize exposure to flood hazards.

To facilitate identifying areas with flood potential, FEMA has developed FIRMs that can be used for planning purposes, including floodplain management, flood insurance, and enforcement of mandatory flood insurance purchase requirements. Kern County is a participating jurisdiction in the NFIP and, therefore, all new development must comply with the minimum requirements of the NFIP.

State

Department of Water Resources

DWR’s major responsibilities include preparing and updating the California Water Plan to guide development and management of the state’s water resources; planning, designing, constructing, operating, and maintaining the State Water Resources Development System; regulating dams; providing flood protection; assisting in emergency management to safeguard life and property;

educating the public; and serving local water needs by providing technical assistance. In addition, DWR cooperates with local agencies on water resources investigations, supports watershed and river restoration programs, encourages water conservation, explores conjunctive use of ground and surface water, facilitates voluntary water transfers, and, when needed, operates a state drought water bank.

Porter-Cologne Water Quality Control Act (California Water Code §13000 et seq.)

The Porter-Cologne Water Quality Control Act (Porter-Cologne Act) (Water Code Sections 13000 et seq.), passed in 1969, is the primary statute covering the quality of waters in California and requires protection of water quality by appropriate designing, sizing, and construction of erosion and sediment controls. The Porter-Cologne Act established the SWRCB and divided California into nine regions, each overseen by an RWQCB. The SWRCB is the primary State agency responsible for protecting the quality of the State's surface and groundwater supplies and has delegated primary implementation authority to the nine RWQCBs. The Porter-Cologne Act assigns responsibility for implementing the CWA Sections 401 through 402 and 303(d) to the SWRCB and the nine RWQCBs. The Porter-Cologne Act requires the development and periodic review of water quality control plans (basin plans) that designate beneficial uses of California's major rivers and groundwater basins and establish narrative and numerical water quality objectives for those waters, provide the technical basis for determining waste discharge requirements, identify enforcement actions, and evaluate clean water grant proposals. The basin plans are updated every three years. Compliance with basin plans is primarily achieved through implementation of the NPDES, which regulates waste discharges as previously discussed. The Porter-Cologne Water Quality Control Act requires that any person discharging waste or proposing to discharge waste within any region, other than to a community sewer system, which could affect the quality of the "waters of the State" file a report of waste discharge. Absent a potential effect on the quality of "waters of the State," no notification is required. However, the RWQCB encourages implementation of BMPs similar to those required for NPDES stormwater permits to protect the water quality objectives and beneficial uses of local surface waters.

Sustainable Groundwater Management Act

In September 2014, California Governor Jerry Brown signed a three-bill package known as the SGMA into law. The SGMA establishes a framework for local groundwater management and requires local agencies to bring over drafted basins into balanced levels of pumping and recharge. The California Statewide Groundwater Elevation Model Priority List ranks groundwater basins across the state with assessment rankings of high, medium, low, or very low. SGMA requires the formation of local-controlled groundwater sustainable agencies in high- and medium-priority groundwater basins. Groundwater Sustainability Agencies (GSAs) are responsible for developing and implementing GSPs to guide groundwater management decisions and ensure long-term sustainability in their basins. In adjudicated basins, the court identified Watermaster serves the purpose of the GSA, and the adjudication judgment serves as the groundwater sustainability plan.

The Kern County Subbasin is currently designated as a high priority basin under SGMA. Thus, the Kern County Subbasin's 14 GSAs including: Buena Vista Waster Storage District GSA, Henry Miller Water District GSA, Cawelo Water District GSA, KGA GSA, City of McFarland GSA, Pioneer GSA, Semitropic Water Storage District GSA, West Kern Water District GSA, Greenfield County Water District GSA, Kern River GSA, Olcese Water District GSA, Arvin GSA, Wheeler Ridge-Maricopa GSA, and the Tejon-Castac Water District GSA must submit a GSP. The 14 GSAs have collaborated in the adoption of a coordination agreement, as required under SGMA, for the coordinated management and implementation of the six GSPs prepared in the Subbasin (KGA, 2022). The Project site is located within the boundaries of the Kern River GSA. SGMA allows for multiple GSPs to be implemented by multiple GSAs and executed pursuant to a single coordination agreement that covers the entire basin to be an acceptable planning scenario. (Water Code § 10727.) In the San Joaquin Valley – Kern County Subbasin (Subbasin), six GSPs were prepared by 17 GSAs for the various management areas established in the Subbasin pursuant to the coordination agreement and submitted to the California DWR for review. Collectively, the six GSPs and the coordination agreement are referred to as the Plan for the Subbasin. Individually, the GSPs include the following:

- Kern Groundwater Authority Groundwater Sustainability Plan – Amended July 2022 (KGA GSP) – prepared by the KGA GSA, Semitropic Water Storage District (SWSD) GSA, Cawelo Water District (CWD) GSA, City of McFarland GSA, Pioneer GSA, West Kern Water District (WKWD) GSA, and Westside District Water Authority GSA.
- Amended Kern River Groundwater Sustainability Plan – July 2022 (Kern River GSP) – prepared by the Kern River GSA and Greenfield County Water District GSA.
- Buena Vista Water Storage District GSA Groundwater Sustainability Plan – July 2022 (Buena Vista GSP) – prepared by the Buena Vista Water Storage District (Buena Vista) GSA.
- Olcese Groundwater Sustainability Agency Groundwater Sustainability Plan – July 2022 (Olcese GSP) – prepared by the Olcese Water District (OWD) GSA.
- Henry Miller Water District Groundwater Sustainability Plan – July 2022 (Henry Miller GSP) – prepared by the Henry Miller Water District (HMWD) GSA.
- South of Kern River Groundwater Sustainability Plan – July 2022 (SOKR GSP) – prepared by the Arvin GSA, Tejon-Castac Water District (TCWD) GSA, the Wheeler Ridge-Maricopa GSA.

On March 2, 2023, the DWR deemed the above six GSPs inadequate for the following deficiencies:

- Deficiency 1: involved how the Plan established and justified undesirable results that represent effects caused by groundwater conditions occurring throughout the Subbasin.
- Deficiency 2: involved the establishment of minimum thresholds for the chronic lowering of groundwater levels.

- Deficiency 3: involved the establishment of sustainable management criteria for land subsidence.
- These findings are based on all uses of groundwater in the region and not specific to the proposed Project. Under SGMA, the Groundwater Authorities are required to begin implementation of the plans, although found inadequate, while working to amend the plans and address the deficiencies.

Local

Metropolitan Bakersfield General Plan

Construction and operation of the Project would be subject to policies and regulations contained within the general plans including the Metropolitan Bakersfield General Plan (MBGP), Kern County Zoning Ordinance, and the Kern County Code of Building Regulations, which include policies, goals, and implementation measures related to hydrology and water quality. The policies and implementation measures in the MBGP related to hydrology and water quality that are applicable to the Project are provided in this section. The MBGP contains additional policies, goals, and implementation measures that are more general in nature and not specific to development, such as the Project. These measures are not listed below, but as stated in Chapter 2, *Introduction*, all policies, goals, and implementation measures in the MBGP are incorporated by reference.

The Project site is in the MBGP area; therefore, it would be subject to applicable policies and measures of the MBGP. The Conservation, Safety, and Public Services and Facilities Elements of the MBGP include goals, policies, and implementation measures related to hydrology and water quality that apply to the Project, described as follows.

Chapter V – Conservation/Water Resources.

Goals

Goal 1. Conserve and augment the available water resources of the planning area.

Goal 2. Assure that adequate groundwater resources remain available to the planning area.

Goal 3. Assure that adequate surface water supplies remain available to the planning area.

Goal 5. Achieve a continuing balance between competing demands for water resource usage.

Policies

Policy 2. Minimize the loss of water which could otherwise be utilized for groundwater recharge purposes and benefit planning area groundwater aquifers from diversion to locations outside the area.

Policy 6. Protect planning area groundwater resources from further quality degradation.

Policy 7 Provide substitute or supplemental water resources to areas already impacted by groundwater quality degradation by supporting facilities construction for surface water diversions.

Policy 8 Consider each proposal for water resource usage with the context of total planning area needs and priorities—major incremental water transport, groundwater recharge, flood control, recreational needs, riparian habitat preservation and conservation.

Chapter VIII – Safety/Seismic

Goals

Goal 7. Protect land uses from the risk of dam failure inundation including the assurances that: the functional capabilities of essential facilities are available in the event of a flood; hazardous materials are not released; effective measures for mitigation of dam failure inundation are incorporated into the design of critical facilities; and the rapid and orderly evacuation of populations in the inundation area will occur.

Policies

Policy 4. Encourage critical facilities in dam inundation areas to develop and maintain plans for safe shut-down and efficient evacuation from their facilities, as appropriate to the degree of flood hazard for each facility.

Policy 13. Determine the liquefaction potential at sites in areas of high groundwater prior to development and determine specific mitigation to be incorporated into the foundation design, as necessary to prevent or reduce damage from liquefaction in an earthquake.

Policy 18. Design discretionary critical facilities located within the potential inundation area for dam failure in order to: mitigate the effects of inundation on the facility; promote orderly shut-down and evacuation (as appropriate); and, prevent on-site hazards from affecting building occupants and the surrounding communities in the event of dam failure.

Policy 19. Design discretionary facilities in the potential dam inundation area used for the manufacture, storage or use of hazardous materials to prevent on-site hazards from affecting surrounding communities in the event of inundation.

Kern Groundwater Authority Groundwater Sustainability Plan

The SGMA was implemented in 2014 to ensure the protection of groundwater in California. The SGMA set forth a statewide directive to bring groundwater basins to a sustainable level through groundwater management and planning. The act also requires GSAs to implement GSPs that manage groundwater sustainability over a 20-year period for groundwater basins/subbasins that have been designated as medium or high priority (critical overdraft) by the DWR.

DWR has determined that the Kern County Subbasin is critically over drafted and therefore a high priority subbasin. The Kern County Subbasin is managed by 14 different GSAs. The OMWC's service area lies primarily within the boundary of the Kern River GSA, with the rest of the service

area in the boundaries of the KGA GSA, and the Cawelo Water District GSA. The following six GSAs have submitted GSPs: Kern River GSA, Buena Vista GSA, South of the Kern River GSA, Olcese Water District GSA, and Henry Miller GSA. Each GSP covers a certain area of the Kern County Subbasin.

The six GSPs were determined to be inadequate by the DWR due to inconsistencies, see discussion above. These inconsistencies are being addressed by the six GSAs to satisfy the requirements of SGMA. The GSP will aim to alleviate overdraft conditions in the Kern County Subbasin by implementing actions that help negate a negative change in groundwater storage. These implementation actions will aim to maintain groundwater levels as well as prevent water quality degradation and land subsidence. The GSPs will implement actions that achieve sustainability in the subbasin by year 2042.

Presently, the Kern County Water Agency implemented a groundwater recharge program which subsequently reduced the pumping of the OMWC. This has stabilized the water table beneath the OMWC service area. Additionally, the KGA GSA, Kern River GSA, and the Cawelo Water District GSA are currently managing groundwater levels within a safe basin operating range. The OMWC continues to aid these efforts by recommending water use reductions to its customers.

Kern County Code of Building Regulations

Kern County Grading Ordinance (17.28)

Chapter 17.28 Kern County Grading Code. Requirements of the Kern County Grading Code will be implemented. A grading permit will be obtained prior to commencement of construction activities. Of particular note with respect to hydrology and water quality is Section 17.28.140, Erosion Control, which addresses the following:

Slopes. The faces of cut and fill slopes shall be prepared and maintained to control against erosion. This control may consist of effective planting. The protection for the slopes shall be installed as soon as practicable and prior to calling for final approval. Where cut slopes are not subject to erosion due to the erosion-resistant character of the materials, such protection may be omitted.

Other Devices. Where necessary, check dams, cribbing, riprap, or other devices or methods shall be employed to control erosion and provide safety.

Temporary Devices. Temporary drainage and erosion control shall be provided as needed at the end of each work day during grading operations, such that existing drainage channels would not be blocked. Dust control shall be applied to all graded areas and materials and shall consist of applying water or another approved dust palliative for the alleviation or prevention of dust nuisance. Deposition of rocks, earth materials, or debris onto adjacent property, public roads or drainage channels shall not be allowed.

Floodplain Management

Kern County has adopted a Floodplain Management Ordinance (Chapter 17.48 of the Building and Construction Code) that applies to “any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations, or storage of equipment or materials.” The purposes of the ordinance include the promotion of “public health, safety, and general welfare, and to minimize public and private losses due to flood conditions” and compliance “with the requirements of the NFIP Regulations.” Among other implementation measures, the ordinance (1) restricts or prohibits certain uses that are susceptible to flood damage or increase erosion and flood heights or velocities; (2) requires that uses vulnerable to floods be protected against flood damage at the time of initial construction; (3) controls the alteration of natural floodplains, stream channels, and natural protective barriers that accommodate or channel flood waters; (4) controls filling, grading, dredging, and other development which may increase flood damage; and (5) prevents or regulated the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

Kern County Development Standards

The Kern County Development Standards apply to all developments within Kern County that are outside of incorporated cities. These standards establish minimum design and construction requirements that will result in improvements that are economical to maintain and will adequately serve the general public. The requirements set forth in these standards are considered minimum design standards and will require the approval of the entity that will maintain the facilities to be constructed prior to approval by the County.

Kern County Water Quality Control Plan

Each of the nine RWQCBs adopts a water quality control plan that recognizes and reflects regional differences in existing water quality, the beneficial uses of the region’s groundwater and surface waters, and local water quality conditions and problems. Water quality problems in the regions are listed in these plans, along with the causes if they are known. Each RWQCB is to set water quality objectives that will ensure the reasonable protection of beneficial uses and the prevention of nuisance, with the understanding that water quality can be changed somewhat without unreasonably affecting beneficial uses.

The Kern County Engineering and Survey Services Department requires the completion of an NPDES applicability form for all construction projects disturbing one or more acre within Kern County. This form requires IPG Kern County 52 Holdings, LLC (Project proponent) to provide background information on construction activities. Project proponents must apply for the permit under one of the following four conditions:

1. All storm water is retained on-site and no storm water runoff, sediment, or pollutants from on-site construction activity can discharge directly or indirectly off-site or to a river, lake, stream, municipal storm drain, or off-site drainage facilities.

2. All storm water runoff is not retained on-site but does not discharge to a water of the United States (i.e., drains to a terminal drainage facility). Therefore, a SWPPP has been developed and BMPs must be implemented.
3. All storm water runoff is not retained on-site, and the discharge is to a water of the United States. Therefore, a Notice of Intent must be filed with the State Regional Water Resources Control Board prior to issuance of the building permit. Also, a SWPPP has been developed and BMPs must be implemented.
4. Construction activity is between 1 to 5 acres and an Erosivity Waiver was granted by the SWRCB. BMPs must be implemented.

Kern County – Applicability of NPDES Program for a Project Disturbing 1 Acre or Greater

As closed systems that never contact the ocean or other waters of the United States, many of the waters within Kern County are technically not subject to protective regulations under the federal NPDES Program. The Kern County Public Works Department requires the completion of an NPDES applicability form for projects with construction activities disturbing one or more acres and requires the Project proponent to provide information about construction activities and to identify whether storm water runoff has the potential of discharging into waters of the United States, waters of the state, or a terminal drainage facility. The purpose of the form is to identify which water quality protection measure requirements apply to different projects (if any). Should stormwater runoff be contained on-site and not discharge into any waters, no special actions are required. Should stormwater runoff discharge into waters of the United States, compliance with the SWRCB Construction General Permit SWPPP requirements is required. Should stormwater runoff not be contained on-site and drains to waters of the state or a terminal drainage facility, the Project proponent would be required to develop a SWPPP and BMPs.

4.10.4 Impacts and Mitigation Measures

Methodology

This section analyzes impacts on hydrology and water quality from the implementation of the Project based on changes to the environmental setting as described above. The Project's potential impacts on hydrology and water quality have been evaluated using the 2023 Preliminary Drainage Report for Airport and Boughton Drive and the 2023 Water Supply Assessment for Warehousing at Airport Drive and Boughton Drive, both prepared by Kier + Wright (Appendix H.1 and H.2, respectively). Impacts were also evaluated w California Environmental Quality Act (CEQA) significance criteria described below and a variety of resources, including multiple online sources, published documents, the MBGP, and professional judgment..

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on hydrology and water quality.

A project could have a have a significant impact on hydrology and water quality if it would meet any of the following criteria:

- Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in any of the following:
 - substantial erosion or siltation on- or off-site
 - substantial increase in the rate of amount of surface runoff, in a manner which would result in flooding on- or off-site
 - create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff
 - impede or redirect flood flows.
- Result in a flood hazard, tsunami, seiche zones, risk release of pollutants due to project inundation.
- Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

Project Impacts

Impact 4.10-1: The Project would violate water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality

Water quality standards and waste discharge requirements could be violated if the Project releases polluted discharges into receiving waters without a permit. Polluted discharges can generate polluted stormwater runoff (i.e., water generated during storm events) or dry weather runoff (i.e., water generated during activities such as dust control). Polluted discharge can consist of sediment

from erosion, pollutants from herbicides or pesticides applied to agricultural lands or vegetation, or pollutants from construction equipment, such as oil drippings or accidental spills of petroleum hydrocarbons.

Construction

The construction phase is anticipated to last approximately 24 months and is proposed for completion in one phase with operations starting immediately after construction is completed. Grading of the proposed Project is anticipated to last approximately 60 days. Construction activities would consist of site preparation, grading, building construction, paving, and architectural coating. Due to the relatively flat terrain of the site, it is anticipated that grading would be limited throughout the Project site to achieve an elevation for final grading.

Short-term impacts related to water quality can occur during the earthwork and construction phase, when the potential for erosion, siltation, and sedimentation would be the greatest. Additionally, impacts could occur prior to the establishment of ground cover, when the erosion potential may remain relatively high. Potential impacts on water quality from erosion and sedimentation are expected to be localized and temporary during construction. Further, as the proposed Project would disturb more than one acre of land surface, it would be required to obtain coverage under the NPDES storm water program. The NPDES Construction General Permit program calls for the implementation of BMPs to reduce or prevent pollutant discharge from these activities to the Maximum Extent Practicable for urban runoff and meeting the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology standards for construction storm water.

To reduce potential impacts during construction, the proposed Project would be required to include a project-specific SWPPP that includes BMPs designed to prevent the occurrence of soil erosion and discharge of other construction-related pollutants that could contaminate water quality and would be applicable to all areas of the Project, per **Mitigation Measure MM 4.10-1**. In addition, prior to the commencement of construction activities, the project proponent would be required to adhere to the requirements of the Kern County Grading Code. This includes implementation of various measures designed to prevent erosion and control drainage on-site, thereby further preventing the potential sedimentation and subsequent degradation of stormwater. Further, as noted in Section 4.7, *Geology and Soils*, **Mitigation Measure MM 4.7-8** would require the preparation of a Soil Erosion and Sedimentation Control Plan to mitigate for any loss of soil and erosion.

During Project construction, any activity that results in the accidental release of hazardous or potentially hazardous materials could result in water quality degradation. Materials that could contribute to this impact include, but are not limited to, petroleum products (e.g., gasoline, diesel, and motor oil), automotive fluids (e.g., antifreeze, lubricant oils, transmission fluid, and hydraulic fluids), cement slurry, and other fluids utilized by construction vehicles and equipment. Motorized equipment could leak hazardous materials due to inadequate or improper maintenance, unnoticed or unrepaired damage, improper refueling, or operator error. The mobilization of sediment or inadvertent spills or leaks of such pollutants could affect the quality of runoff water from construction activities.

To reduce potential impacts associated with hazardous materials that could affect water quality, **MM 4.10-1** would require the preparation of a SWPPP (see below). BMPs identified within the SWPPP would be required to be shown on a drainage plan per the Kern County Development Standards and the Kern County Code of Building Regulations, prior to issuance of a grading permit.

Mitigation Measure MM 4.10-1 would require that ground disturbance be minimized within drainage areas and timed to avoid the rainy season where possible. This would decrease the potential of stormwater mixing with construction-related materials and degrading water quality.

As noted in Section 4.9, *Hazards and Hazardous Materials*, of this Draft EIR, **Mitigation Measure MM 4.9-3** would require the Project proponent to provide a Hazardous Materials Business Plan that would describe proper handling, storage, transport, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill; describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; and establish public and agency notification procedures for spills and other emergencies, including fires. **MM 4.10-1** identify additional guidance for the safe handling and use of these materials, which is guided by the NPDES Construction General Permit and SWPPP. The measures identify protocols regarding the handling of these types of materials should a spill or release occur. Therefore, with implementation of **MM 4.10-1**, **MM 4.7-8**, and **MM 4.9-3**, impacts to water quality would be less than significant during construction.

Operation

Operation of the Project would require use of certain materials that could be considered hazardous materials during maintenance activities, of which could include paint, solvents, cleaners, and waste oil. The overall proposed Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage and logistics uses, with up to 20 percent of the facility occupied by cold storage use. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage, handling and distribution for a variety of goods and materials used in commerce that could include but not limited to finished products, consumer goods, parts, materials, tires, tools, and others that are typically found in a modern distribution/logistics facility consistent with M-1 PD-H Zone District. Outdoor storage of bulk and wholesale materials is not proposed as part of this Project. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.). Project-level impacts are not expected to increase to a significant level and additional mitigation measures specific to product-type are not warranted.

An increase of impervious surfaces within the proposed Project area would result in increased rates of stormwater runoff during rainy periods, which can be a source of surface water pollution. Urban runoff pollutants may stem from erosion of disturbed areas, deposition of atmospheric particles derived from automobile or industrial sources, corrosion or decay of building materials, rainfall contact with toxic substances, and spills of toxic materials on surfaces which receive rainfall and generate runoff. New urban industrial and commercial development can generate urban runoff from

parking areas as well as any areas of hazardous materials storage exposed to rainfall. The proposed Project would implement **Mitigation Measure MM 4.10-2**, which requires the preparation of a hydrologic study and drainage plan per the Kern County Development Standards and the Kern County Code of Building Regulations prior to issuance of a grading permit. Based on the findings of the hydrologic study, the drainage plan would recommend an on-site design that complies with all channel setback requirements and ensure facilities are located in such a way to lessen their impact on drainage areas and their water quality. The drainage plan requires that the proposed Project include on-site surface water retention basins to control surface water runoff on-site. Adherence to the requirements of the approved final hydrologic study and drainage plan would minimize operational impacts to water quality during operation.

As described in **Section 4.9, Hazards and Hazardous Materials**, the proposed Project would incorporate **Mitigation Measure MM 4.9-3** that would require the Project proponent to provide a Hazardous Materials Business Plan that would delineate hazardous material and hazardous waste storage areas; describe proper handling, storage, transport, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill. Implementation of **Mitigation Measure MM 4.9-3** would ensure safe handling of hazardous materials on-site and provide the means for prompt cleanup in the event of an accidental hazardous material release.

Water quality could also be degraded by non-hazardous materials during operation activities, as the Project would result in an approximate total-building coverage of 43 percent within the 49.05-acre site, or roughly 923,130 total-square feet, resulting in a significant increase in impervious surfaces on the site at buildout. During dry periods, impervious surfaces can collect greases, oils, and other vehicle-related pollutants. During storm events, these pollutants can mix with stormwater and degrade water quality. The proposed Project would also be required to retain the stormwater per Kern County's drainage requirements and all other applicable standards. Additionally, a drainage plan would be prepared in accordance with the Kern County Development Standards and Kern County Code of Building Regulations. The drainage plan would include post-construction structural and nonstructural BMPs. Adherence to these requirements would minimize potential for operation period water quality degradation. Therefore, with implementation of **Mitigation Measures MM 4.10-1, MM 4.10-2, MM 4.7-8, and MM 4.9-3**, impacts to water quality would be less than significant during Project operation.

Mitigation Measures

Implementation of **MM 4.7-8** and **MM 4.9-3** would be required (see **Section 4.7, Geology and Soils**, and **Section 4.9, Hazards and Hazardous Materials**, for full mitigation measure text). **MM 4.10-1** and **MM 4.10-2** would also be required.

MM 4.10-1 Prior to issuance of a grading permit, the Project proponent/operator shall submit a Stormwater Pollution Prevention Plan for review and approval by the Kern County Planning and Natural Resources Department and/or Kern County Public Works Department. The Stormwater Pollution Prevention Plan shall be designed to minimize runoff and shall specify best management practices to prevent all construction pollutants from contacting stormwater, with the intent

of keeping sediment or any other pollutants from moving offsite and into receiving waters. The requirements of the Stormwater Pollution Prevention Plan shall be incorporated into design specifications and construction contracts. Recommended best management practices to be incorporated in the Stormwater Pollution Prevention Plan shall include the following:

- a. Minimization of vegetation removal;
- b. Implementing sediment controls, including silt fences as necessary;
- c. Installation of a stabilized construction entrance/exit and stabilization of disturbed areas;
- d. Properly containing and disposing of hazardous materials used for construction onsite;
- e. Properly covering stockpiled soils to prevent wind erosion;
- f. Proper protections and containment for fueling and maintenance of equipment and vehicles;
- g. Appropriate disposal of demolition debris, concrete and soil, and aggressively controlling litter.
- h. Cleanup of silt and mud on adjacent street due to construction activity;
- i. Checking all lined and unlined ditches after each rainfall;
- j. Restore all erosion control devices to working order to the satisfaction of the Kern County Planning and Natural Resources Department and/or Kern County Public Works Department after each rainfall run-off;
- k. Install additional erosion control measures as may be required due to uncompleted grading operations or unforeseen circumstances which may arise.

MM 4.10-2 Prior to the issuance of a grading permit, the Project proponent/operator shall complete a final drainage plan designed to evaluate and minimize potential increases in runoff from the Project site. The study shall include, but is not limited to the following:

- a. A numerical stormwater model for the project site that evaluates existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event.
- b. The drainage plan shall consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that

would result from project implementation.

- c. Engineering recommendations to be incorporated into the project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite.
- d. The drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards and approved by the Kern County Public Works Department prior to the issuance of grading permits.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.7-8, MM 4.9-3, MM 4.10-1 and MM 4.10-2**, impacts would be less than significant.

Impact 4.10-2: The Project would substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin

The Project is entirely located within the OMWC service area and relies on OMWC as its public water supplier. Groundwater is an existing water supply source for the OMWC. However, since the California State Water Project delivery system was initiated in 1977, local groundwater has only been used as a supplemental source, which has historically been approximately 10% of the OMWC's supply. OMWC groundwater is drawn from the Kern County Subbasin within the Tulare Lake Hydrologic Region of the San Joaquin Valley Basin. Groundwater sustainability in the subbasin is overseen by the KGA. Per the 2014 SGMA, the KGA was responsible for the development of a Groundwater Sustainability Plan. The Kern Groundwater Authority Groundwater Sustainability Plan was determined to be inadequate by the DWR due to inconsistencies in 2023 (DWR, 2023). These inconsistencies are currently being addressed by GSA to satisfy the requirements of SGMA. Other Kern subbasin plans where the other similar known and unknown projects could occur have also been deemed inadequate. Thus, a determination of the cumulative impacts is discussed further below.

Construction

The Project would require water for dust suppression, fire protection, and pipeline hydrotesting. Water usage during construction, primarily for dust suppression purposes, is not anticipated to exceed the 16-month construction phase. The water would be transported via truck from OMWC and would not substantially decrease groundwater supplies within the Subbasin, as detailed in **Section 4.19, Utilities and Service Systems**.

Construction water demand for the Project is estimated to be 102 (AFY). As further explained in **Section 4.19, *Utilities and Service Systems***, construction water demands would not substantially deplete the supplies of the local water district (including groundwater). Construction would not prevent or inhibit any incidental groundwater recharge that currently occurs on-site from precipitation. During construction, the Project site would generally remain pervious and would allow any current infiltration that occurs to continue. During installation of the Project components, most rainfall would disperse across their panel surface and fall to the ground surface. This would facilitate infiltration and subsequent groundwater recharge. While the Project would result the conversion of portions of the site impervious area, most of the ground surface would remain permeable and enable infiltration. Thus, construction of the Project would not substantially reduce groundwater volumes or impede recharge and impact sustainable groundwater management within the basin.

Thus, due to the minimal amount of groundwater needed for construction activities, and the temporary, short-term nature of groundwater extraction required, construction of the Project would not be considered water intensive. Thus, the Project also would not impede sustainable groundwater management of the basin and impacts would be less than significant.

Operation

The Project site is not specifically designated to operate as a groundwater recharge location (Todd, 2020). The Project would result in the conversion of portions of the site to impervious surface areas including concrete foundations, paved parking areas for automobiles, trailers, and truck docks, and impervious off-site enhancements such as new pavement, curb and gutter, and sidewalks along Airport Drive, Boughton Drive, and Hanger Way.

However, it is reasonable to assume some groundwater infiltration would still occur at the Project site during precipitation events, because approximately 17% of the site would remain as landscape area, where infiltration could occur. Thereby, groundwater recharge could still occur with implementation of the Project, and the Project would not result in significant impacts relative to interference with groundwater recharge.

The ongoing operational water demand for the Project is estimated to be 31 AFY (Appendix H.2). The Project water demands are not expected to change and shall remain the same at buildout and through the year 2040. The surplus water supply volume is greater than 9,000 AF through year 2040. The demand projections for the Project at buildout in normal, single dry, and multiple dry years are summarized in **Tables 4.19-3 through 4.19-8** in **Section 4.19, *Utilities and Service Systems***. As concluded by the water supply assessment, the OMWC will have sufficient water supplies to serve the existing and future water uses of the area, including the proposed Project, under normal, single dry, and multiple dry years.

The California DWR has determined that the Subbasin is critically over drafted and therefore a high priority subbasin. The OMWC's service area lies primarily within the boundary of the Kern River GSA, with the rest of the service area in the boundaries of the KGA GSA, and the Cawelo Water District GSA. Presently, the Kern County Water Agency implemented a groundwater

recharge program, which subsequently reduced the pumping of the OMWC. This has stabilized the water table beneath the OMWC service area. Additionally, the proposed Project would not have the scale or massing within the OMWC service area to interfere with groundwater recharge in the area (Appendix H.2). Therefore, the Project would not impede groundwater management of the Subbasin.

Implementation of the Project does not propose uses that would require removal of groundwater from the Project site. Therefore, it would not decrease groundwater supplies or impede sustainable management of the Subbasin. As described in Section 4.19, *Utilities and Service Systems*, the Subbasin as a whole has an overdraft of 324,326 acre-feet per year over the baseline conditions of which the KGA is approximately 239,346 acre-feet of the deficit. Should the Project require groundwater supplies in excess of the allotment from the District, impacts to water supplies would be considered potentially significant. In order to address this and mitigate any potential impacts, the Project would implement **MM 4.19-3**, which requires the operator to provide information on any groundwater that will be used. Implementation of **MM 4.19-4** would also be required, which consists of installing water meters on all facilities. Therefore, with mitigation, the impacts would be less than significant for the Project.

Mitigation Measures

Implementation of **MM 4.19-3** and **MM 4.19-4** would be required (see **Section 4.19**, *Utilities and Service Systems*).

Level of Significance After Mitigation

With implementation of **MM 4.19-3** and **MM 4.19-4**, impacts would be less than significant after mitigation.

Impact 4.10-3: The Project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would result in a substantial erosion or siltation on- or off-site:

Erosion and sedimentation are natural processes driven by surface runoff that can be accelerated by human activities, such as construction earthwork activities. During construction, removal of vegetation or impervious areas (such as concrete or asphalt) expose soils to precipitation and surface runoff and can accelerate surface soil erosion. The process may result in loss of topsoil and creation of erosional features including rills and gullies. Erosion potential is determined by four principal factors: the characteristics of the soil, the extent of vegetative cover, topography, and climate. Soil texture and permeability determine the resistance of soil to entrainment by surface runoff. Vegetative cover plays a critical role in controlling erosion by shielding and binding the soil. Slope influences the rate of runoff and is directly correlated with erosion potential where flatter topography has a much lower potential for erosion. The intensity and duration of rainfall determines the extent and the capacity for flowing water to detach and transport soil particles.

Excessive erosion can cause a loss of land or possibly increase flooding. Increased sedimentation can also restrict storm drains and channels and lead to flooding during storms that the drainage system should capably handle. In addition, development can increase the likelihood of erosion and sedimentation along unlined drainage channels because of increased stormwater flows.

The Project is located on relatively flat terrain, with the Project site situated on varying slopes. There are no surface water bodies (creeks, streams, or rivers) within the Project area. The Project site mostly consists of sands, and the on-site soils are generally well drained. Vegetation on-site primarily consists of a moderate growth of weeds. Typically, long slope length and high slope steepness contribute to higher erosion rates. Thus, since the site is relatively flat, erosion potential related to slope length and slope steepness is low.

Due to the relatively flat nature of the Project site, grading is not anticipated to be substantial and would not substantially change the existing drainage patterns. The drainage patterns during both construction and operation would be such that water received on-site during rain event and off-site flow that enters the site would continue to flow through the site much as it does currently.

During operation, the overall proposed Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage and logistics uses, with a up to 20 percent of the facility occupied with cold storage. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage and distribution for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, tools, etc. typically found in a modern distribution/logistics facility consistent with M-1 PD-H Zone District. Outdoor storage of bulk and wholesale materials is not proposed as part of this Project. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.).

As described above, the Project would implement **Mitigation Measures MM 4.10-1** and **MM 4.10-2** to reduce erosion or siltation, and thereby, long-term impacts on drainage patterns across the Project site. **Mitigation Measure MM 4.10-2** would require the completion of a hydrologic study and final drainage plan for the proposed Project prior to the issuance of a grading permit. The plan would demonstrate that the Project site has been designed to minimize potential increases in runoff. Potential runoff would also be minimized with the inclusion of retention basin on-site to capture high storm flows. Further, as noted in Section 4.7, *Geology and Soils*, **Mitigation Measure MM 4.7-8** would require the preparation of a Soil Erosion and Sedimentation Control Plan to mitigate for any loss of soil and erosion that could alter existing drainage patterns. Therefore, any stormwater management features would be consistent with existing regulatory requirements and would minimize any erosion or sedimentation to less than significant levels.

With implementation of the mitigation measures, the impacts from stormwater and sedimentation would be less than significant for the Project.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.7-8** (see Section 4.7, *Geology and Soils*, for full mitigation measure text), **MM 4.10-1**, and **MM 4.10-2** would be required.

Level of Significance After Mitigation

With implementation of **MM 4.7-8**, **MM 4.10-1**, and **MM 4.10-2**, impacts would be less than significant after mitigation.

Impact 4.10-4: The Project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would substantially increase the rate of amount of surface runoff in a manner that would result in flooding on- or off-site:

The Project site is relatively flat and is unlikely to alter existing drainage patterns post-construction. The Project site runoff would continue to drain to the northeast across the site as Project construction and operation would not substantially alter the existing contours of the site. Furthermore, no rivers exist within the Project site or near it.

Although excavation and grading would occur on portions of the Project site during construction, ground disturbance would not substantially alter the overall topography or flow regime of these areas or the Project site. Water would be applied to the ground surface during the temporary construction phase, primarily for dust suppression and to reduce erosion from wind and vehicle disturbances. The water would be mechanically and precisely applied and would generally infiltrate or evaporate which would minimize the potential for uncontrolled runoff from this source. The potential effects would be further reduced through compliance with **MM 4.10-2**, requiring the completion of a hydrologic study and final drainage plan for the proposed Project prior to the issuance of a grading permit; the plan would demonstrate that the Project site has been designed to minimize potential increases in runoff.

During Project operation, the overall proposed Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage and logistics uses, with a secondary application of cold storage occupying up to 20 percent of the facility. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage and distribution for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, tools, etc. typically found in a modern distribution/logistics facility consistent with M-1 PD-H Zone District. Outdoor storage of bulk and wholesale materials is not proposed as part of this Project. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.) Outdoor storage is not proposed as part of this Project. Final exterior design, however, ensures runoff would drain to retention basins located on the south side of each building within the boundaries of the Project site. The basins would be able to store 371,897 cubic feet of water; well over the required volume of 371,680 cubic feet as explained in Appendix H.1. The basins would be designed to accommodate a 100-year storm event and would detain runoff and release it at a rate no greater than the predevelopment condition of the Project site. The proposed Project would be required to retain the stormwater per Kern County's drainage requirements and all other applicable standards.

Further, the rate and amount of surface runoff is determined by multiple factors, including topography, the amount and intensity of precipitation, the amount of evaporation that occurs in the watershed, and the amount of precipitation and water that infiltrates to the groundwater. The Project would not alter the amount or intensity of precipitation, nor would it require significant amounts of additional water to be imported to the Project site. In addition, the Project site is located in an area designated by FEMA as Zone X, which is defined as an area with minimal flood hazard.

Thus, through conformance with all requirements contained within the Kern County Grading Ordinance and implementation of **Mitigation Measure MM 4.10-2**, long-term effects on drainage patterns and the potential to result in flooding on- or off-site, would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.10-2** would be required.

Level of Significance After Mitigation

With implementation of **MM 4.10-2** impacts would be less than significant after mitigation.

Impact 4.10-5: The Project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff:

The Project site does not contain any existing stormwater drainage systems on-site. Proposed Project implementation would result in intensification of development and addition of impervious surfaces that would potentially provide additional sources of polluted runoff. Impacts are considered potentially significant. As mentioned above, to capture any potential stormwater runoff, the Project would install an on-site storm drainage system consisting of inlets, underground piping, and surface and underground basins. Runoff would drain to retention basins located on the south side of each building within the boundaries of the Project site. The basins would be able to store 371,897 cubic feet of water; well over the required volume of 371,680 cubic feet as explained in Appendix H.1. Further, the retention basins would provide storage in exceedance of the post-development 100-year, 24-hour storm event.

To further reduce the potential for effects from erosion or other materials, the proposed Project would be required to adhere to drainage plans approved by the Kern County Engineering, Surveying and Permit Services Department. Conformance with these requirements would minimize stormwater runoff from the Project site during construction and operation. The proposed Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements in order to accommodate specialized storage for a variety of products as described above. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.) However, as outdoor storage is not proposed as part of this Project, no additional mitigation measure regarding products stored indoors is warranted. Thus, with the implementation of **Mitigation Measure MM 4.10-2**, impacts associated with polluted runoff would be less than significant.

Mitigation Measures

Implementation **Mitigation Measure MM 4.10-2** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.10-2** impacts would be less than significant after mitigation.

Impact 4.10-6: The Project would substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would create or contribute runoff water that would impede or redirect flood flows:

According to the FEMA FIRM, the Project is not located within a FEMA-designated 100-year flood zone. As described above, under impact the Project site is relatively flat and would remain so post-construction. In order to retain predevelopment condition rates of runoff, the proposed Project would include installation of an on-site storm drainage system consisting of inlets, underground piping, and surface and underground basins. As explained in Appendix H.1, the proposed Project's drainage areas would be divided into three drainage areas and all runoff would be retained on-site. The Project would include three retaining earthen basins and three underground prefabricated retaining basins for overflow storage from the respective earthen basin. The retention basins would be located on the south side of each building within the boundaries of the Project site. The basins would be able to store 371,897 cubic feet of water; well over the required volume of 371,680 cubic feet. The basins would be designed to accommodate a 100-year storm event and would detain runoff and release it at a rate no greater than the predevelopment condition of the Project site. The calculations for the provided volumes are shown in Appendix H.1.

The Project would also be required to retain the stormwater per Kern County's drainage requirements and all other applicable standards. Additionally, a drainage plan would be prepared in accordance with the Kern County Development Standards and Kern County Code of Building Regulations. The drainage plan would include post-construction structural and nonstructural BMPs. Prior to the commencement of construction activities, the applicant would be required to prepare and submit drainage plans to the Kern County Engineering and Survey Services Department. This would include post-construction structural and nonstructural BMPs. With implementation of the drainage infrastructure described above, the Project would not impede or redirect flows from the site.

Development of the Project site would increase the impervious surface area of the Project site and could result in increased sheet flow across the Project site. To mitigate the potential impacts from increased sheet flow across the Project site, retention basins are proposed to be built, which would retain the water on-site as described above. The proposed Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements in order to accommodate specialized storage for a variety of products as described above. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.) However, as outdoor storage is not proposed as part of this Project that would otherwise affect runoff and flood flows, no additional mitigation measure regarding products stored indoors is warranted. Thus, long-term effects on drainage patterns and the potential to result in flooding on- or off-site, would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

Impacts would be less than significant.

Impact 4.10-7: The Project would risk release of pollutants due to Project inundation in a flood, tsunami, or seiche zone

As mentioned above in Section 4.10.2, the U.S. Army Corps of Engineers prepares flood inundation maps in the event of a dam failure, including the closest dam (the Lake Isabella Dam east of Bakersfield). The Lake Isabella Dam is outside of dam inundation areas as defined by the KCGP as it is over 30 miles to the east of the Project area and the flood waters would not reach the Project area because of its distance and topography.

A tsunami is a series of ocean waves generated by sudden displacements in the sea floor, landslides, or volcanic activity. A seiche is a standing wave in an oscillating body of water. The Project area is located approximately 100 miles east of the Pacific Ocean and there are no enclosed bodies of water within the Project area. Therefore, the risk for tsunami or seiche in the Project area is very low. Furthermore, there are no enclosed bodies of water within the Project vicinity and the Project site is in an area of minimal flood hazard, located outside of the FEMA-designated 100-year flood zone area. Therefore, the risk for tsunami or seiche in the Project area is very low and there would be little or no chance for an impact involving release of pollutants during such events.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact would occur.

Impact 4.10-8: The Project would conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan

The Project site is located within the Central Valley RWQCB jurisdiction and is subject to the applicable requirements of the Basin Plan administered by the RWQCB in accordance with the Porter-Cologne Water Quality Control Act (RWQCB, 2023).

Additionally, the Project is entirely located within the OMWC service area and relies on OMWC as its public water supplier. OMWC groundwater is drawn from the Kern County Subbasin within the Tulare Lake Hydrologic Region of the San Joaquin Valley Basin. The Kern County Subbasin is overseen by the KGA basin manager. The OMWC's service area lies primarily within the boundary of the Kern River GSA, with the rest of the service area in the boundaries of the KGA GSA, and the Cawelo Water District GSA. As mentioned above, the KGA Groundwater Sustainability Plan was determined to be inadequate by the DWR due to inconsistencies. These inconsistencies are currently being addressed by GSA to satisfy the requirements of SGMA. As such, the proposed Project would not conflict with any existing applicable requirements within the proposed GSP.

The water purveyor for the Project would be required to comply with any restrictions within the Basin Plan and enforced by the KGA. Construction and operation of the Project would not conflict with or obstruct implementation of the Basin Plan because there is no significant surface drainage, or surface water beneficial uses associated with the Project area (Todd 2020). The proposed Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements in order to accommodate specialized storage for a variety of products as described above. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.). However, as outdoor storage is not proposed as part of this Project that could otherwise conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, no additional mitigation measure regarding products stored indoors is warranted. Additionally, the proposed Project's drainage plan (Appendix H.1) meets the applicable Kern County Design Standards. Therefore, operation of the Project would not conflict with or obstruct implementation of a water quality control or groundwater management plan. Furthermore, as detailed in Appendix H.2, the water needed to support the Project construction and operations is sufficient for the next 20 years. Therefore, the Project would not conflict with the groundwater management of the area and the potential impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

4.10.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a Project are considered significant if the incremental effects of the individual Projects are considerable when viewed in connection with the effects of past Projects, and the effects of other Projects located in the vicinity of the Project site. As described in Chapter 3, *Project Description*, of this Draft EIR, there are approximately 29 various Projects proposed or approved within the 6 miles of the Project vicinity.

Similar to the Project, none of the cumulative Projects are anticipated to discharge to waters of the United States due to their location within the San Joaquin Valley, which is a closed basin with no outlet to the Pacific Ocean. Regardless, **MM 4.10-1** would require the proposed Project to prepare and implement a SWPPP in accordance with County requirements. All other similar projects also would be required to prepare a SWPPP. These SWPPPs would include BMPs, similar to those of the Project, and/or designed specifically for those projects to prevent the mixture of sediment and

other pollutants with stormwater. This would help prevent cumulative degradation of water quality in the basin.

Furthermore, the proposed Project would implement a Hazardous Materials Business Plan as part of **Mitigation Measure MM 4.9-3** (see **Section 4.9, *Hazards and Hazardous Materials*** for full mitigation measure) that would require appropriate handling of hazardous materials on-site to ensure they do not come into contact with stormwater and affect water quality. All other projects in the vicinity that would handle hazardous materials also would be required to comply with hazardous material regulations. Therefore, cumulative impacts associated with water quality degradation would not be cumulatively considerable, and the Project would not contribute to a cumulative impact on water quality.

With respect to erosion, drainage, and flooding, the Project would implement **Mitigation Measures MM 4.7-8, MM 4.10-1, and MM 4.10-2**, which would minimize drainage impacts. Similar to above, it is anticipated that other cumulative projects would be required to implement similar measures, in order to minimize erosion, drainage, and flooding related impacts. Drainage related impacts from cumulative projects would also be primarily localized. Therefore, cumulative impacts related to erosion, drainage, and flooding would not be cumulatively considerable. With the implementation of **Mitigation Measures MM 4.7-8, MM 4.10-1, and MM 4.10-2**, the Project would not result in cumulatively considerable contribution to significant cumulative impacts in regard to drainage related impacts.

Regarding groundwater supply, the Project site is within the Kern County Subbasin and is not adjudicated. The proposed Project would obtain its water supply from OMWC (Appendix H.3). The water purveyor for the Project would be required to comply with any restrictions within the Basin Plan and enforced by the KGA. As mentioned above, although the Basin is in an over drafted condition, the Water Supply Assessment prepared for the Project determined that there are sufficient supplies for both proposed Project construction and operation for the next 20 years. Further, in order to mitigate any potential impacts, the Project would implement **Mitigation Measure MM 4.19-3**, which requires the operator to provide information on any groundwater that will be used. Implementation of **Mitigation Measure MM 4.19-4** would also be required, which consists of installing water meters on all facilities. Thus, while the Basin is in a state of overdraft, the Project's water use would be less than significant regarding direct impacts to groundwater supply.

Mitigation Measures

Implementation of **MM 4.7-8** (see **Section 4.7, *Geology and Soils***) and **MM 4.9-3** (see **Section 4.9, *Hazards and Hazardous Materials***), **MM 4.10-1, MM 4.10-2, MM 4.19-3, and MM 4.19-4** (see **Section 4.19, *Utilities and Service Systems***) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.7-8, MM 4.9-3, MM 4.10-1, MM 4.10-2, MM 4.19-3, and MM 4.19-4**, cumulative impacts would be less than significant.

Section 4.11

Land Use and Planning

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Section 4.11

Land Use and Planning

4.11.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environmental and regulatory settings regarding land use and planning. It also evaluates the impacts on land use and planning that would result from implementation of the proposed IPG Industrial Project (Project) and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the Metropolitan Bakersfield General Plan (MBGP), the Kern County Zoning Ordinance, and the Kern County Airport Land Use Compatibility Plan (ALUCP) for the Meadows Field Airport.

4.11.2 Environmental Setting

Regional Setting

Kern County is California's third largest county in land area and encompasses approximately 8,161 square miles. The County's geography includes, among others, mountainous areas, agricultural lands, and deserts. As noted, the project site is located north of the City of Bakersfield, which serves as the County seat and sits at the southern end of the San Joaquin Valley, bound by the Coast Range to the west, the Transverse Range (San Emigdio Mountains) to the south, and the Sierra Nevada (including the Tehachapi Mountains) to the east.

The proposed Project is located within the unincorporated community of Oildale in central Kern County. The nearest boundary for the City of Bakersfield is located 1.7 miles south of the Project site, and the City of Shafter is located 3.1 miles northeast of the project site. The Project site is situated approximately 1.4 miles northeast of State Route (SR) 99. Regional access to the project site is provided by SR-99 and Merle Haggard Drive via Airport Drive. Local access to the project site is available via Airport Drive and Boughton Drive. The project site and surrounding land are in a relatively flat-lying plain and exhibit little topographic variation.

Project Vicinity

The proposed Project is located on approximately 49 acres of privately owned land in unincorporated Kern County (APNs: 492-010-13 and 492-010-17). The project site is relatively flat with a gentle north-easterly slope. The elevation of the project site ranges between approximately 495 and 540 feet above mean sea level. The project site is vacant land, and existing development in the area includes access roads, residential neighborhoods, industrial and commercial uses, and an airport.

The project site is not located within a Special Flood Hazard Area based upon the Federal Emergency Management Agency Flood Insurance Rate Map (FIRM), per FIRM number 060291825F, effective 10/21/2021. The nearest flood hazard areas are located approximately one mile west and east of the project site. There are no identified State-designated Alquist-Priolo Earthquake Fault Zones on the project site. The nearest major faults of the San Andreas Fault and Garlock Fault are approximately 40 miles southwest and 40 miles southeast of the project site, respectively. The project site is not located within an area that is designated by the California Department of Conservation as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. No lands within the project boundary are subject to a Williamson Act Land Use contract. The proposed Project site is not part of an Agricultural Preserve. In addition, the project site is not located within the boundaries of an adopted Habitat Conservation Plan.

General Plan and Zoning

Kern County and the City of Bakersfield have jointly prepared and separately adopted a general plan for an unincorporated planning area known as the MBGP, in which the proposed Project is located. This 409 square mile planning area is a separate, but interrelated plan to the Kern County General Plan. The MBGP guides future development in the area through the adoption of all mandated elements per Government Code section 65302.

Within the MBGP, the Project site has a Land Use Map Code (Land Use Designation) of LI (Light Industrial), which is consistent with the existing zone classification of M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District. This base M-1 District contains the PD and H combining districts overlays to ensure that development in these designated areas are compatible with surrounding land uses. The land use designations, or land use map codes, are illustrated in **Figure 4.11-1** and the zoning classifications are illustrated in **Figure 4.11-2**.

Figure 4.11-1: General Plan Land Use Designation

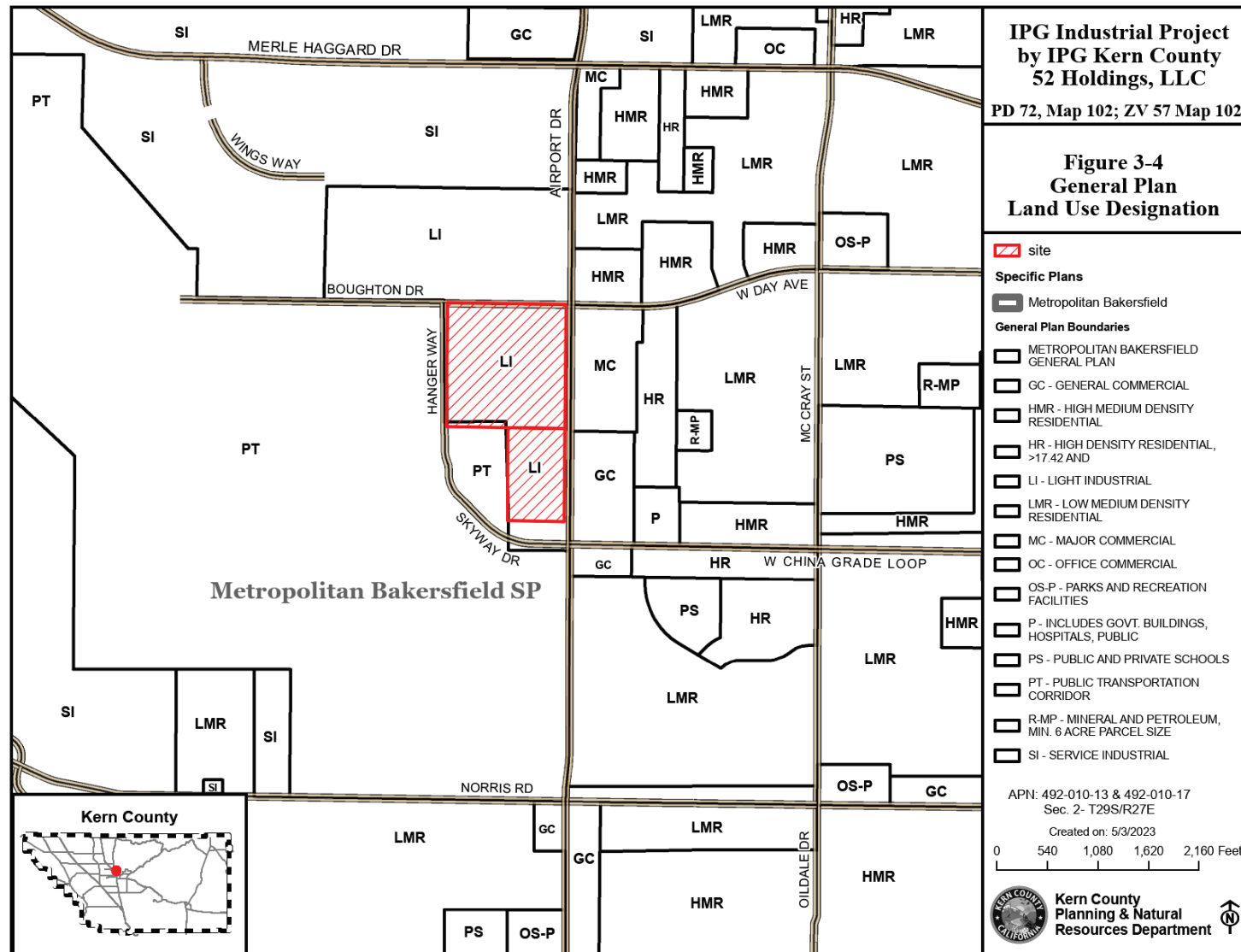
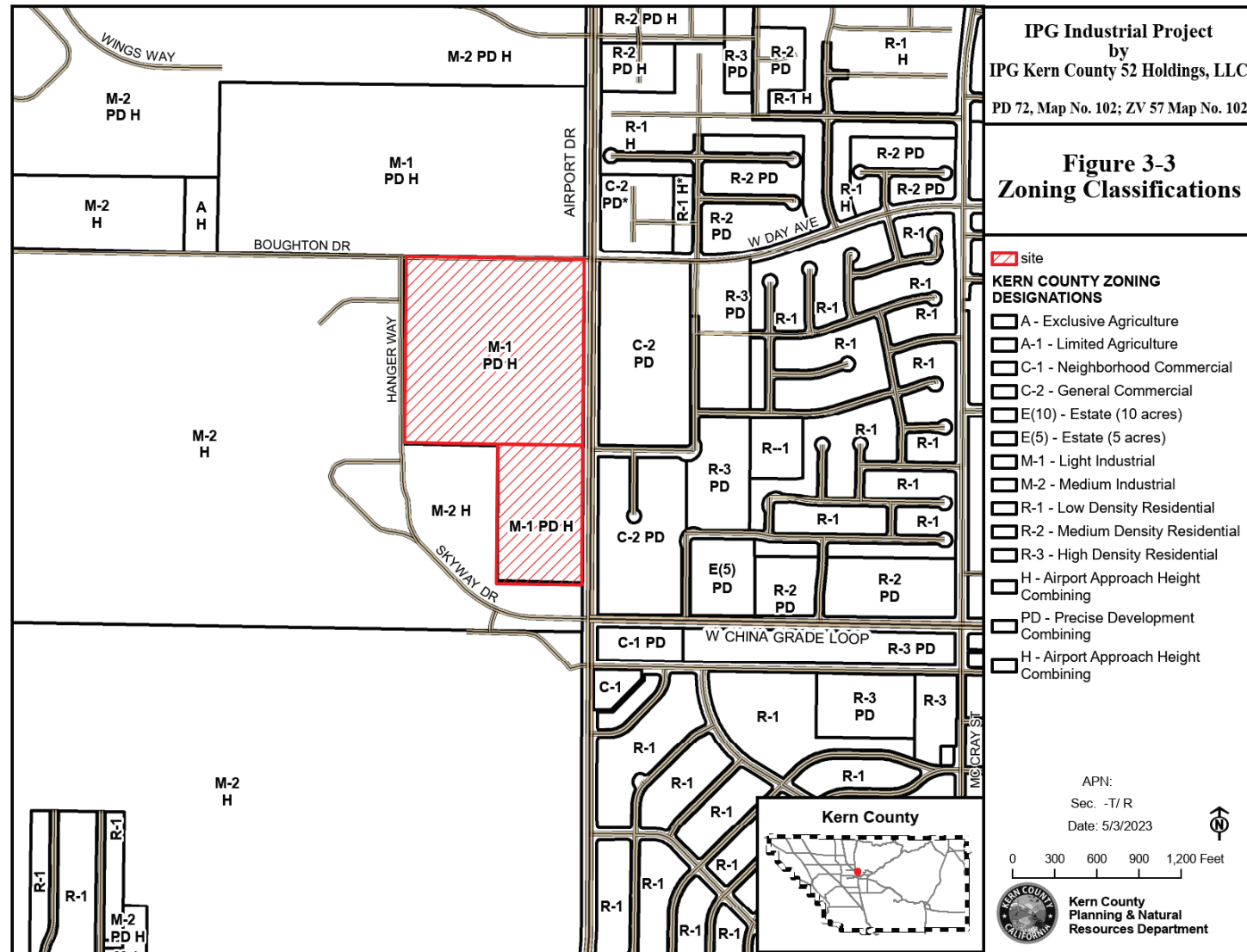


Figure 4.11-2: Zoning Classifications



Surrounding Land Uses

Existing land uses surrounding the immediate Project site are varied and consist of industrial, commercial, transportation, and residential uses. To the north, the Project boundary runs parallel to Boughton Drive with vacant undeveloped land across Boughton Drive which is also zoned for light industrial use. An aeronautical university is also located northwest of the site at the terminus of Boughton Drive. To the east, the Project boundary runs parallel to Airport Drive, with a mix of uses across Airport Drive including Derrel's Mini Storage, Park Meadows Apartments, and Fabulous Burgers. The residential uses comprised of single- and multi-family residences are also located east of the Project site, with the nearest residences being the Park Meadows apartment complex sited approximately 100 feet directly east. To the south is Skyway Drive, where a FedEx Ship Center, Epic Jet Center, and Airman Flight Training are opposite of Skyway Drive. To the west is Hanger Way, and approximately 0.6 miles west of the Project site is Meadows Field Airport and transportation related services. As noted previously, the MBGP establishes land use designations while the Kern County Zoning Ordinance establishes zoning classifications (base and combining districts) in order to ensure compatibility with surrounding uses. The combined zoning classifications that surround the Project site are provided below in **Table 4.11-1**.

Table 4.11-1: Project Site and Surrounding Land Use Designations and Zoning Classifications

Location	Existing Land Use	Existing Map Code Designation	Existing Zoning Classification
Project Site	Vacant	Light Industrial (LI)	Light Industrial Precise Development Airport Approach Height Combining District (M-1 PD H)
North	Vacant	Light Industrial (LI)	Light Industrial Precise Development Airport Approach Height Combining District (M-1 PD H)
East	Residential, Storage, Restaurant	Major Commercial (MC), General Commercial (GC)	General Commercial Precise Development Combining District (C2 PD)
South	Shipping Centers, Transportation services	Public Transportation (PT)	Medium Industrial Airport Approach Height Combining District (M-2 H)
West	Airport, Transportation Services	Public Transportation (PT)	Medium Industrial Airport Approach Height Combining District (M-2 H)

Key:

C2 = General Commercial District

GC = General Commercial

H = Airport Approach Height

LI = Light Industrial

MC = Major Commercial

M-2 = Medium Industrial

PD = Precise Development

PT = Public Transportation

Airport Land Use Compatibility Plan

The proposed Project is located within the Sphere of Influence (SOI) of the Meadows Field Airport, located approximately 0.6 miles west of the project, as shown in **Figure 4.11-3**. Meadows Field Airport is recognized as an Airport Influence Area, in which policies of the Kern County ALUCP apply to the proposed Project.

Figure 4.11-4 shows the compatibility criteria for land uses in the vicinity of airports. The proposed Project is located in zone B1, Approach/Departure Zone and Adjacent to Runway, and zone C, Common Traffic Pattern. Zone B1 is more restrictive and will therefore take precedence over zone C. According to the Kern County ALUCP, allowable density for zone B1 for uses other than residential is 60 people per acre. Required open land for this zone is 30%. Warehousing, truck terminals, two-story office buildings, and automobile parking, all uses in the proposed Project, are normally accepted uses in this zone.

Figure 4.11-3: Airport Land Use Compatibility Plan

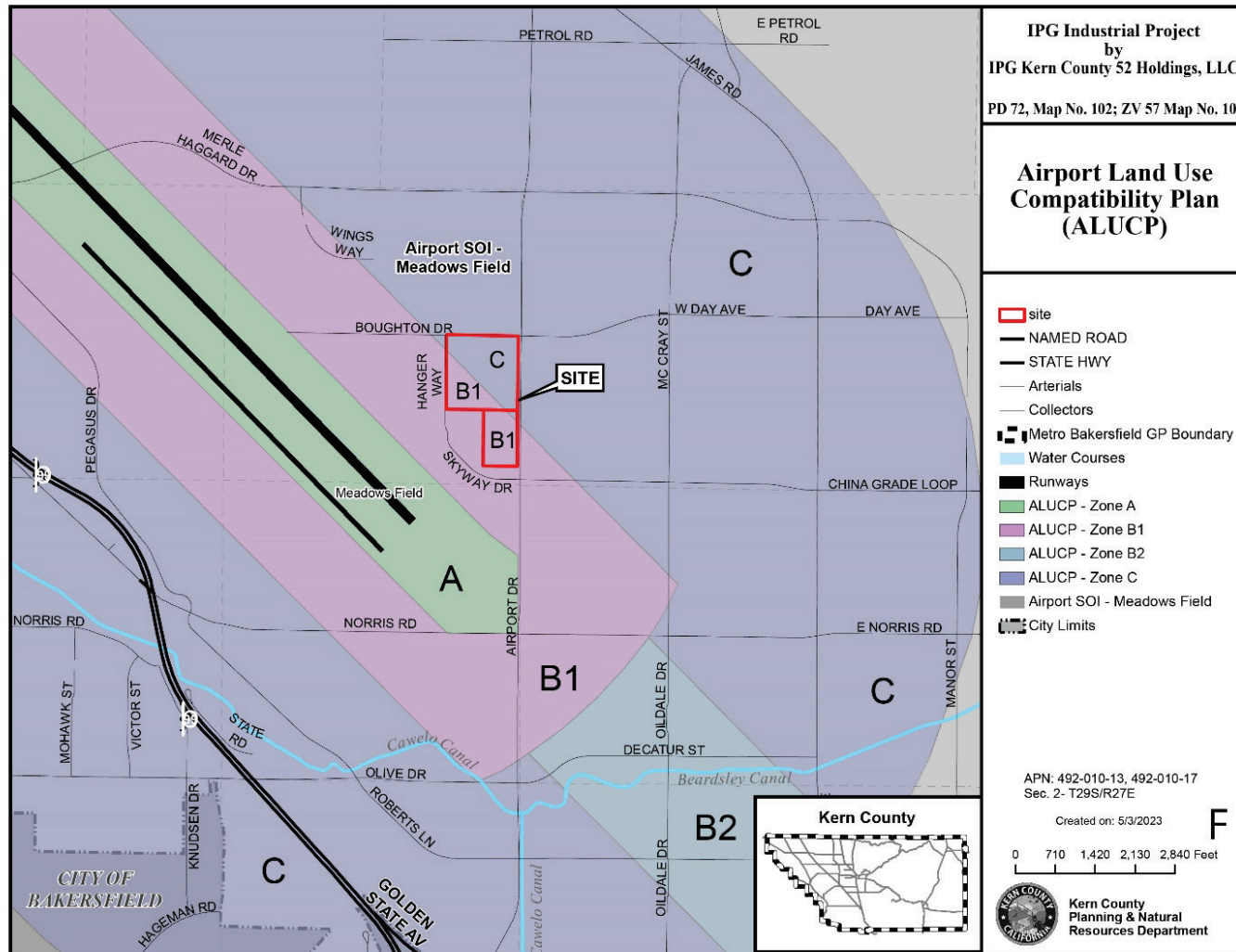


Figure 4.11-4: Kern County ACLUP Compatibility Criteria

Policies / Chapter 2

Table 2A					
Compatibility Criteria					
Kern County Airport Land Use Compatibility Plan					
Zone	Location ¹	Impact Elements	Maximum Densities		Required Open Land ⁴
			Residential ² (du/ac)	Other Uses (people/ac) ³	
A	Runway Protection Zone or within Building Restriction Line	<ul style="list-style-type: none"> High risk High noise levels 	0	10	All Remaining
B1	Approach/Departure Zone and Adjacent to Runway	<ul style="list-style-type: none"> Substantial risk — aircraft commonly below 400 ft. AGL or within 1,000 ft. of runway Substantial noise 	0.1	60	30%
B2	Extended Approach/Departure Zone	<ul style="list-style-type: none"> Significant risk — aircraft commonly below 800 ft. AGL Significant noise 	0.5	60	30%
C	Common Traffic Pattern	<ul style="list-style-type: none"> Limited risk — aircraft at or below 1,000 ft. AGL Frequent noise intrusion 	15	150	15%
D	Other Airport Environs	<ul style="list-style-type: none"> Negligible risk Potential for annoyance from overflights 	No Limit	No Limit	No Requirement
E	Special Land Use	<ul style="list-style-type: none"> Compatibility Issues 	15	150	No Requirement

Zone	Additional Criteria		Examples	
	Prohibited Uses ⁵	Other Development Conditions ⁸	Normally Acceptable Uses ⁹	Uses Not Normally Acceptable ¹⁰
A	<ul style="list-style-type: none"> All structures except ones with location set by aeronautical function Assemblages of people Objects exceeding FAR Part 77 height limits Hazards to flight⁶ 	<ul style="list-style-type: none"> Dedication of aviation easement 	<ul style="list-style-type: none"> Aircraft tiedown apron Pastures, field crops, vineyards Automobile parking 	<ul style="list-style-type: none"> Heavy poles, signs, large trees, etc.
B1 and B2	<ul style="list-style-type: none"> Schools, day care centers, libraries Hospitals, nursing homes Highly noise-sensitive uses (e.g. amphitheaters) Storage of highly flammable materials⁷ Hazards to flight⁶ 	<ul style="list-style-type: none"> Locate structures maximum distance from extended runway centerline Dedication of aviation easement 	<ul style="list-style-type: none"> Uses in Zone A Any agricultural use except ones attracting bird flocks Warehousing, truck terminals Two-story offices Single-family homes on an existing lot 	<ul style="list-style-type: none"> Residential subdivisions Intensive retail uses Intensive manufacturing or food processing uses Offices with more than two stories Hotels and motels
C	<ul style="list-style-type: none"> Schools Hospitals, nursing homes Hazards to flight⁶ 	<ul style="list-style-type: none"> Dedication of overflight easement for residential uses 	<ul style="list-style-type: none"> Uses in Zone B Parks, playgrounds Most retail uses Duplexes and medium-density apartments Two-story motels 	<ul style="list-style-type: none"> Large shopping malls Theaters, auditoriums Large sports stadiums Hi-rise office buildings with more than four stories
D	<ul style="list-style-type: none"> Hazards to flight⁶ 	<ul style="list-style-type: none"> Deed notice required for residential development 	<ul style="list-style-type: none"> All except ones hazardous to flight 	
E	<ul style="list-style-type: none"> Hazards to flight⁶ 	<ul style="list-style-type: none"> Special development conditions 	<ul style="list-style-type: none"> Unique circumstance land use development¹¹ 	

2-2

Table 2A Continued

Compatibility Criteria**Kern County Airport Land Use Compatibility Plan****NOTES**

- 1 Zones may also apply elsewhere if an airport has atypical operational procedures or specialized aircraft activities.
- 2 Residential parcels should not contain more than the indicated number of dwelling units per gross acre. Clustering of units is encouraged as a means of meeting the Required Open Land requirements.
- 3 The land use should not attract more than the indicated number of people per acre at any time. This figure should include all individuals who may be on the property (e.g., employees, customers/visitors, etc.). These densities are intended as general planning guidelines to aid in determining the acceptability of proposed land uses. Special short-term events related to aviation (e.g., air shows), as well as non-aviation special events, are exempt from the maximum density criteria.
- 4 Open land requirements are intended to be applied with respect to the entire zone. This is typically accomplished initially as part of the community's general plan or a specific plan.
- 5 May be modified by airport-specific policies or decision of local governing body with appropriate adopted findings based upon evidence in the record.
- 6 See Policy Section 3.3.
- 7 Within the B1 and B2 zones, only the following flammable materials are permitted: aviation fuel, other aviation-related materials, and up to 2,000 gallons of nonaviation materials.
- 8 These conditions do not apply to ministerial actions.
- 9 These uses typically can be designed to meet the density requirements and other development conditions listed.
- 10 These uses typically do not meet the density and other development conditions listed. They should be allowed only if a major community objective is served by their location in this zone and no feasible alternative location exists.
- 11 The E zone accommodates land uses with special characteristics that are not normally allowed in the C Zone. Each E zone is unique to the requested land use and each individual airport. Special conditions of development may be formulated in order to minimize flight hazards.

Source: *Comprehensive Airport Land Use Plan (1996)*

4.11.3 Regulatory Setting

Federal

Federal Aviation Administration

Federal Regulation Title 14, Part 77 establishes standards and notification requirements for objects that may affect navigable airspace. The notification would evaluate construction impacts, determine potential hazards, identify safety mitigation measures, and record new objects as it relates to airport and airspace operations. The Part 77 notification process allows the Federal Aviation Administration (FAA) to identify any potential aeronautical hazards in advance in order to prevent/minimize adverse impacts to navigable airspace.

State

California Environmental Quality Act

California Environmental Quality Act (CEQA) was developed to protect the quality of the environment and the health and safety of persons from adverse environmental effects. Discretionary projects are required to be reviewed consistent with the requirements of CEQA to determine if there is potential for the project to cause a significant adverse effect on the environment. Depending on the type of project and its potential effects, technical traffic, noise, air quality, biological resources, and geotechnical reports may be needed. If potential adverse effects can be mitigated to less than significant levels, a mitigated negative declaration may be adopted. If potentially adverse effects cannot be mitigated to less than significant levels, an environmental impact report is required. These documents have mandated content requirements and public review times.

Local

Land use and planning decisions within and adjacent to the project site are guided and regulated by the MBGP and the Kern County Zoning Ordinance. The Metropolitan Bakersfield General Plan contains goals, objectives, and policies and provides an overall foundation for establishing land use patterns. For this land use impact analysis, this section lists all relevant goals, objectives, policies, and implementation measures related to the proposed Project. The Zoning Ordinance contains regulations through which the General Plan's provisions are implemented. The most relevant regulations pertaining to industrial development are presented below.

Metropolitan Bakersfield General Plan

The MBGP is a policy document designed to provide long-range guidance to those making decisions affecting the future character of the Metropolitan Bakersfield planning area. It represents the official statement of the community's physical development as well as its economic, social and environmental goals. Included in the MBGP is the Land Use, Circulation, Housing, Conservation, Open Space, Noise, Safety, Public Services and Facilities, and Parks Elements. Each element establishes goals, policies, and implementation measures that guide planning decisions in

unincorporated Kern County. The goals, policies, and implementation measures relevant to the proposed Project are listed below.

Chapter II – Land Use Element

Goals

Goal 1. Accommodate new development which captures the economic demands generated by the marketplace and establishes Bakersfield's role as the capital of the southern San Joaquin Valley.

Goal 2. Accommodate new development which provides a full mix of uses to support its population.

Goal 3. Accommodate new development which is compatible with and complements existing land uses.

Goal 4. Accommodate new development which channels land uses in a phased, orderly manner and is coordinated with the provision of infrastructure and public improvements.

Goal 6. Accommodate new development that is sensitive to the natural environment, and accounts for environmental hazards.

Goal 7. Establish a built environment which achieves a compatible functional and visual relationship among individual buildings and sites.

Goal 8. Target growth companies that meet clean air requirements and create sustainable employment in jobs paying higher wages.

Policies

Policy 8. The Kern County and Incorporated Cities Hazardous Waste Management Plan and Final Environmental Impact Report serves as the policy document guiding all facets of hazardous waste.

Policy 31. Allow for a variety of industrial uses, including land-extensive mineral extraction and processing, heavy manufacturing, light manufacturing, warehousing and distribution, transportation-related, and research and development uses.

Policy 32. Protect existing industrial designations from incompatible land use intrusions.

Policy 33. Encourage the efficient use of existing industrial land uses through consolidation of building and storage facilities.

Policy 34. Provide for the clustering of new industrial development adjacent to existing industrial uses and along major transportation corridors.

Policy 35. Encourage upgrading of visual character of heavy manufacturing industrial areas through the use of landscaping or screening-of visually unattractive buildings and storage areas.

Policy 36. Require that industrial uses provide design features, such as screen walls, landscaping and height, setback and lighting restrictions between the boundaries of adjacent residential land use designations so as to reduce impacts on residences due to light, noise, sound and vibration.

Policy 37. Street frontages along all new industrial development shall be landscaped.

Policy 38. Minimize impacts of industrial traffic on adjacent residential parcels through the use of site plan review and improvement standards.

Policy 76. Provide for a mix of land uses which meets the diverse needs of residents; offers a variety of employment opportunities; capitalizes, enhances, and expands upon existing physical and economic assets; and allows for the capture of regional growth.

Policy 79. Provide for an orderly outward expansion of new "urban" development (any commercial, industrial, and residential development having a density greater than one unit per acre) so that it maintains continuity of existing development, allows for the incremental expansion of infrastructure and public services, minimizes impacts on natural environmental resources, and provides a high quality environment for living and business.

Policy 82. Preserve existing significant sound residential neighborhoods, commercial districts, and industrial areas.

Policy 86. Encourage infill of vacant parcels.

Policy 95. When planning for new development, coordinate with utility companies to designate future or potential electrical transmission line corridors as needed to serve the metropolitan area.

Chapter III. Circulation Element

A. Streets

Goals

Goal 1. Provide a safe and efficient street system that links all parts of the area for movement of people and goods.

Goal 2. Provide for safe and efficient motorized, non-motorized, and pedestrian traffic movement.

Goal 3. Minimize the impact of truck traffic on circulation, and on noise sensitive land uses.

Design

Policies

Policy 3. Provide additional right-of-way pavement width to accommodate turn lands at intersections.

Policy 5. Place traffic signals to minimize vehicular delay.

Policy 6. Design and locate site access driveways to minimize traffic disruption where possible considering items such as topography, past parcelization and other factors.

Image

Policies

Policy 12. Maintain the integrity of the circulation system.

Policy 16. Require that truck access to commercial and industrial properties be designed to minimize impacts on adjacent residential parcels.

Policy 17. Require buildings expected to be serviced by delivery trucks to provide off-street facilities for access and parking.

Policy 22. Design transportation improvements to minimize noise impacts on adjacent uses (I-19).

General

Policies

Policy 34. Minimize the impacts of land use development on the circulation system. Review all development plans, rezoning applications, and proposed general plan amendments with respect to their impact on the transportation system, and require revisions as necessary.

Policy 37. Require new development and expansion of existing development to pay for necessary access improvements, such as street extensions, widenings, turn lanes, signals, etc., as identified in the transportation impact report as may be required for a project.

Policy 39. Require new development and expansion of existing development to pay or participate in its pro rata share of the costs of expansions in area-wide transportation facilities and services which it necessitates.

C. Bikeways

Policies

Policy 5. Consider bicycle safety when implementing improvements for automobile traffic operations.

Policy 7. Provide bicycle parking facilities at activity centers such as shopping centers, employment sites, and public buildings

D. Parking

Goals

Goal 1. Provide an efficient parking system to respond to the needs of motorists.

Goal 2. Satisfy parking requirements in all new developments (residential, commercial, industrial, etc.) through off-street facilities.

Policies

Policy 1. Ensure that adequate on-site parking supply and parking lot circulation is provided on all site plans in accordance with the adopted parking standards.

Policy 2. Discourage the intrusion of non-neighborhood parking in residential areas.

Chapter V. Conservation Element

A. Biological Resources

Goal 1. Conserve and enhance Bakersfield's biological resources in a manner which facilitates orderly development and reflects the sensitivities and constraints of these resources.

Policy 1. Direct development away from "sensitive biological resource" areas, unless effective mitigation measures can be implemented.

C. Soils and Agriculture

Goal 1. Provide for the planned management, conservation, and wise utilization of agricultural land in the planning area.

Policies

Policy 6. Continue implementing land grading ordinances that reduce soil erosion/siltation commonly associated with land development.

Policy 7. Land use patterns, grading, and landscaping practices shall be designed to prevent soil erosion while retaining natural watercourses when possible.

Policy 12. Prohibit premature removal of ground cover in advance of development and require measures to prevent soil erosion during and immediately after construction.

Policy 13. Minimize the alteration of natural drainage and require development plans to include necessary construction to stabilize runoff and silt deposition through enforcement of grading and flood protection ordinances.

Policy 15. Buffers such as setbacks, berms, greenbelts, and open space areas shall be established to separate farmland from incompatible urban uses.

Policy 16. Future development which involves in-fill of the urban area as opposed to development on the urban fringes shall be encouraged.

D. Water Resources

Policy 2. Minimize the loss of water which could otherwise be utilized for groundwater recharge purposes and benefit planning area groundwater aquifers from diversion to locations outside the area.

Policy 6. Protect planning area groundwater resources from further quality degradation.

E. Air Quality

Policies

Policy 1: Comply with and promote San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) control measures regarding Reactive Organic Gases (ROG). Such measures are focused on: (a) steam driven well vents, (b) Pseudo-cyclic wells, (c) natural gas processing plant fugitives, (d) heavy oil test stations, (e) light oil production fugitives, (f) refinery pumps and compressors, and (g) vehicle inspection and maintenance.

Policy 2. Encourage land uses and land use practices which do not contribute significantly to air quality degradation.

Policy 3. Require dust abatement measures during significant grading and construction operations.

Policy 4. Consider air pollution impacts when evaluating discretionary permits for land use proposals. Considerations should include:

- Alternative access routes to reduce traffic congestion.
- Development phasing to match road capacities.
- Buffers including increase vegetation to increase emission dispersion and reduce impacts of gaseous or particulate matter on sensitive uses.

Policy 5. Consider the location of sensitive receptors such as schools, hospitals, and housing developments when locating industrial uses to minimize the impact of industrial sources of air pollution.

Policy 13. Consider establishing priority parking areas for carpoolers in projects with relatively large numbers of employees to reduce vehicle miles traveled and improve air quality.

Policy 15. Promote the use of bicycles by providing attractive bicycle paths and requiring provision of storage facilities in commercial and industrial projects.

Policy 22. Require the provision of secure, convenient bike storage racks at shopping centers, office buildings, and other places of employment in the Bakersfield Metropolitan area.

Policy 23. Encourage the provision of shower and locker facilities by employers, for employees who bicycle or jog to work.

Policy 29. Encourage the use of alternative fuel and low or zero emission vehicles.

Chapter VII. Noise Element

Goals

Goal 1: Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained.

Goal 2: Protect the citizens of the planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources.

Policies

Policy 1. Identify noise-impact areas exposed to existing or projected noise levels exceeding 65 dB CNEL (exterior) or the performance standards described in Table VII-2 [Metropolitan Bakersfield General Plan, 2007: VII-9] (Table 4.11-2). The noise exposure contour maps on file at the City of Bakersfield and County of Kern indicate areas where existing and projected noise exposures exceed 65 dB CNEL (exterior) for the major noise sources identified.

Table 4.11-2: Noise Level Performance Standards (Table VII-2)

Category	Cumulative Number of minutes in any one-hour time period	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	65
5	0	75	70

Source: Metropolitan Bakersfield General Plan

Note: Each of the noise level standards specified in this table shall be reduced by five (5) dB(A) for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards should be applied at a residential or other noise-sensitive land use and not on the property of a noise-generating land use.

Policy 2. Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into project design to reduce noise to acceptable levels.

Policy 3. Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will exceed the performance standards contained within Table VII-2 in areas containing residential or other noise-sensitive land uses.

Implementation Measures:

Implementation 3. Require development of proposed residential or other noise sensitive land uses in noise-impacted area to comply with the noise standards of 65 dB CNEL or less in outdoor activity

areas and 45 dB CNEL or less within interior living spaces and the performance standards within Table VII-2.

Implementation. Require proposed commercial and industrial uses or operations to be designed or arranged so that they will not subject residential or other noise sensitive land uses to exterior noise levels in excess of 65 dB CNEL and interior noise levels in excess of 45 dB CNEL and so that impacts on noise sensitive uses shall not exceed the performance standards in Table VII-2.

Chapter VIII. Safety Element

Policy 1. The adopted Kern County, California Multi-Hazard Mitigation Plan is incorporated by reference. This multi-jurisdictional plan, approved in compliance with the Disaster Mitigation Act of 2000, provides long-term planning to reduce the impacts of future disasters.

Implementation. The adopted multi-jurisdictional Kern County, California Multi-Hazard Mitigation Plan, as approved by FEMA, shall be used as a source document for preparation of environmental documents pursuant to CEQA, evaluation of project proposals, formulation of potential mitigation and identification of specific actions that could, if implemented, mitigate impacts from future disasters and other threats to public safety.

A. Seismic Safety

Goal 1. Substantially reduce the level of death, injury, property damage, economic and social dislocation and disruption of vital services that would result from earthquake damage.

Policies

Policy 5. Incorporate planning for incidents affecting critical facilities into contingency plans for disaster response and recovery.

Policy 9. Adopt and maintain high standards for seismic performance of buildings, through prompt adoption and careful enforcement of the most current seismic standards of the Uniform Building Code.

Policy 11. Require site-specific studies to locate and characterize specific fault traces within an Alquist-Priolo Earthquake Fault Zone for all construction designed for human occupancy.

Implementation Measures:

Implementation 3. Require structures that are within the plan area and are subject to Building Department review to adhere to the most current seismic standards adopted as part of the Uniform Building Code.

B. Public Safety

Goals

Goal 2. Ensure that adequate police and fire services and facilities are available to meet the needs of current and future metropolitan residents through the coordination of planning and development of metropolitan police and fire facilities and services.

Goal 4. Assure that fire, hazardous substance regulation and emergency medical service problems are continuously identified and addressed in a proactive way, in order to optimize safety and efficiency.

Policies

Policy 2. Require discretionary projects to assess impacts on police and fire services and facilities.

Policy 7. Enforce ordinances regulating the use/manufacture/sale/ transport/disposal of hazardous substances, and require compliance with state and federal laws regulating such substances.

Policy 8. The Kern County and Incorporated Cities Hazardous Waste Management Plan and Final Environmental Impact Report serves as the policy document guiding all facets of hazardous waste.

Policy 12. Where recommended by appropriate local, State or Federal agencies for discretionary projects, soils shall be tested for concentrations of agricultural chemicals prior to grading permit approval, whenever feasible. Contaminated soils shall be excavated and disposed of at a certified hazardous waste disposal facility whenever necessary.

Policy 13. Fugitive dust emissions shall be controlled through applicable requirements (Regulation VIII) set forth by the San Joaquin Valley Unified Air Pollution Control District, including but not limited to; irrigation, paving of construction roads, and limiting grading activities during periods of high wind. These practices would reduce potential adverse health effects resulting from the development of agricultural property.

Policy 15. Fugitive dust emissions shall be controlled through applicable requirements set forth by the San Joaquin Valley Unified Air Pollution Control District (Regulation VIII), including but not limited to; irrigation, paving of construction roads, and limiting grading activities during periods of high wind. These practices would reduce potential adverse health effects as a result of exposure to Coccidioidomycosis.

Policy 16. All new discretionary development projects shall be subject to environmental and design review on a site-specific, project-by-project basis, including but not limited to, an assessment to determine whether hazardous materials present potential health affects to human health as required by the Department of Environmental Services.

Chapter X. Public Services and Facilities Element

A. General Utility Services

Goals

Goal 1. Maintain a coordinated planning and implementation program for the provision of public utilities to the planning area.

Goal 2. Coordinate the planning and implementation of planning area municipal-type utility facilities and services.

Policies

Policy 5. Require all new development to pay its pro rata share of the cost of necessary expansion in municipal utilities, facilities and infrastructure for which it generates demand and upon which it is dependent.

B. Water Distribution

Policy 3. Require that all new development proposals have an adequate water supply available.

C. Sewer Service

Goal 1. Ensure the provision of adequate sewer service to serve the needs of existing and planned development in the planning area.

Policy 1. Effect the consolidated collection, treatment, and disposal of wastewater from all urban development within the metropolitan area, discouraging the creation or expansion of separate systems and encouraging the consolidation and interconnection of existing separate systems.

D. Storm Drainage

Goals

Goal 1. Ensure the provision of adequate storm drainage facilities to protect planning area residents from flooding resulting from storm water excess.

Goal 2. Maintain a comprehensive storm drainage system which serves all urban development within the planning area.

Implementation Measures

Implementation 4. Use drainage area retention basins for drainage disposal when direct discharge to a waterway is not available. Combine storm drainage usage with recreational usage when feasible. Incorporate in such basins recessed areas for off-season retention of nuisance flows.

Maintain all basins with the primary purpose of drainage disposal, with recreational usage as a secondary objective.

E. Street Lighting

Goals

Goal 1. Provide uniform and adequate public lighting for all developed and developing portions of the planning area.

Goal 2. Develop uniform planning area street light location and design standards.

Policies

Policy 4. Require developers to install street lighting in all new developments in accord with adopted city standards and county policies.

F. Solid Waste

Goal 1. Ensure the provision of adequate solid waste disposal services to meet the demand for these services in the planning area.

Policy 1: Comply with, and update as required, the adopted county solid waste management plan.

Implementation Measures

Implementation 1. Implement the "Kern County Solid Waste Management Plan-1988", and subsequent updates which will make the Metropolitan Bakersfield Municipal landfill at Bena available to the General Plan area.

Kern County Zoning Ordinance

Title 19 of the Kern County Ordinance provides a description of permitted uses for the various zoning classifications within the County. The Kern County Zoning Ordinance (KCZO) consists of two primary parts: a Zoning Map that delineates the boundaries of zoning districts; and a Zoning Code that explains the purpose of the districts, specifies permitted and conditional uses, and establishes development and performance standards. The intent of the Zoning Code is to protect public health, safety, and the general welfare of residents and visitors in the County. Together with the Zoning Map, the Zoning Code identifies the particular uses permitted on each parcel of land in the County and sets forth regulations and standards for development to ensure that the policies, goals, and objectives of the General Plan are implemented. In addition to land use regulations, the Zoning Code contains development standards that can lessen a new structure's impacts on a location or area. These standards control the height, setbacks, parking, lot coverage, gross floor area, etc. for new structures. The Zoning Code also regulates which uses are permitted in each of the County's zoning districts to ensure compatibility between land uses, and outlines the public hearing process with respect to the requested land use permit. The following is a description of the zone district currently designated within the project area.

Light Industrial (M-1) District

The purpose of the Light Industrial (M-1) District is to designate areas for wholesale commercial, storage, trucking, assembly-type manufacturing, and other similar industrial uses. Processing or

fabrication will be limited to activities conducted within a building that does not emit fumes, odor, dust, smoke, or gas beyond the confines of the building within which the activities occur or produce significant levels of noise or vibration.

Precise Development Combining District

The purpose of the Precise Development (PD) Combining District is to designate areas with unique site characteristics or environmental conditions or areas surrounded by sensitive land uses to ensure that development in such areas is compatible with such constraints. All development in the PD Combining District shall be subject as a minimum to Special Development Standards as specified in Chapter 19.80 of the KCZO; however, a Special Development Standards Plot Plan Review shall not be required. The application of the PD District may be initiated by either the property owner or the County. The PD District may be combined with any base district. The regulations established by the PD District shall be in addition to the regulations of the base district with which the PD District is combined.

Airport Approach Height (H) Combining District

The purpose of the Airport Approach Height (H) Combining District is to minimize aviation hazards by regulating land uses, restricting the height of buildings and vegetation, and specifying design criteria necessary to promote aviation safety and to implement the requirements of the adopted Airport Land Use Compatibility Plan. The H District may be applied to areas within the vicinity of any public or general-use airport as provided for in the adopted Airport Land Use Compatibility Plan. The standards established by the H District shall be in addition to the regulations of the base district with which the H District is combined.

As described previously in **Chapter 3, Project Description**, implementation of the proposed Project includes the following requests:

- Precise Development Plan (PD No. 72, Map No. 102) to allow construction and operation an approximate 923,130 square foot warehouse, distribution and logistics facility within two (2) single-story warehouses (Building 1: 655,690 square feet, including 10,000 square foot office area; and Building 2: 267,440 square feet with 5,000 square foot office area) totaling 923,130 square feet, with 15,000 square feet of dedicated office space (Section 19.36.020.E.2 & 19.36.020.D.1) on an approximate 49.05 acre project site across two-(2-) parcels, in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District at the corner of Boughton Drive and Airport Drive.
- Zoning Variance (ZV No. 57, Map No. 102) to allow construction of a 56-foot-tall warehouse building where 35 feet is authorized (Section 19.76.080) in the M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) District.

As such, the basis of approval for the requested Precise Development Plan and Zone Variance as identified in the Kern County Zoning Ordinance are listed below.

Section 19.56.150 Basis for Approval for Precise Development Plan

The decision-making authority may approve or conditionally approve an application for a precise development plan if it finds all of the following:

- The proposed development is consistent with the designations, goals, and policies of the applicable General or Specific Plan.
- The proposed development will not be materially detrimental to the health and safety of the public or to property and residents in the vicinity.

Section 19.106.040 Basis for Approval for Zone Variance

The decision-making authority may approve or conditionally approve an application for a variance if it finds all of the following:

- Special circumstances exist applicable to the subject property, including size, shape, topography, location, or surroundings, such that the strict application of this title deprives such property of privileges enjoyed by other property in the vicinity and in the same zoning district or districts.
- The granting of the variance does not constitute a grant of special privilege inconsistent with the limitations upon other properties in the vicinity and zoning district in which such property is located.
- The granting of the variance will not be materially detrimental to the public health, safety, or welfare or to property or residents in the vicinity.

Regional Transportation Plan

The most recent adopted Regional Transportation Plan (RTP) was prepared by the Kern Council of Governments (COG) and was adopted in 2022. The 2022 RTP is a 24-year blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide development of the planned multimodal transportation systems in Kern County. It was developed through a continuing, comprehensive, and cooperative planning process, and provides for effective coordination between local, regional, State, and federal agencies. Included in the 2022 RTP is the Sustainable Communities Strategy (SCS) required by California's Sustainable Communities and Climate Protection Act, of Senate Bill (SB) 375. The California Air Resources Board (ARB) set targets for Kern's greenhouse gas (GHG) emissions reductions from passenger vehicles and light-duty trucks at 9% per capita by 2020 and 15% per capita by 2035 as compared to 2005. In addition, SB 375 provides for closer integration of the RTP/SCS with the Regional Housing Needs Allocation (RHNA) ensuring consistency between low-income housing needs and transportation planning.

The intent of the SCS is to achieve the State's emissions reduction targets for automobiles and light trucks. The SCS will also provide opportunities for a stronger economy, healthier environment, and safer quality of life for community members in Kern County. The RTP/SCS seeks to: improve economic vitality; improve air quality; improve the health of communities; improve transportation

and public safety; promote the conservation of natural resources and undeveloped land; increase access to community services; increase regional and local energy independence; and increase opportunities to help shape the community's future.

The 2022 RTP/SCS financial plan identifies how much money is available to support the region's transportation investments. The plan includes a core revenue forecast of existing local, State, and federal sources along with funding sources that are considered to be reasonably available over the time horizon of the RTP/SCS. These new sources include adjustments to State and federal gas tax rates based on historical trends and recommendations from two national commissions (National Surface Transportation Policy and Revenue Study Commission and National Surface Transportation Infrastructure Financing Commission), leveraging of local sales tax measures, local transportation impact fees, potential national freight program/freight fees, future State bonding programs, and mileage-based user fees (Kern COG 2022).

Kern County Airport Land Use Compatibility Plan

The Kern County ALUCP was prepared as a result of the California State Legislature amending in 1994 the Aeronautics Law, State Aeronautics Act, Airport Land Use Commission, Public Utilities Code (Chapter 4, Article 3.5). The legislative intent of this statute is expressed as "...to provide for the orderly development of each public use airport in this state and the area surrounding these airports so as to promote the overall goals of the California airport noise standards... and to prevent the creation of new noise and safety problems. It is the purpose of this article to protect public health, safety and welfare by ensuring the orderly expansion of airports and the adoption of land use measures that minimize the public's exposure to excessive noise and safety hazards within areas around public airports to the extent these areas are not already devoted to incompatible uses."

The purpose of the Kern County ALUCP is to establish procedures and criteria by which the County of Kern and the affected incorporated cities can address compatibility issues when making planning decisions regarding airports and the land uses around them.

Kern County's Solid Waste Management Plan

The Solid Waste Management Plan is a comprehensive guide for all solid waste management activities in the County. The plan identifies the existing solid waste generation and disposal facilities in Kern County, estimates future solid waste disposal demand, and identifies programs to meet this future need.

Kern County Multi-Hazard Mitigation Plan

The purpose of the multi-hazard mitigation plan is to reduce or eliminate the long-term risk to people and property from natural hazards and their effects in the County. The 2019-20 Update to the Plan is to help Kern County become less vulnerable to losses from future disasters. The multi-jurisdictional plan includes the County and the incorporated municipalities of Arvin, Bakersfield, California City, Delano, Maricopa, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. The County also encompasses areas of land controlled by federal and State land management agencies, including the California Department of Forestry and Fire Protection, Bureau of Land Management, and Bureau of Reclamation. While other levels of government have jurisdiction in these parts of

the County, the Hazard Mitigation Plan could also be used to document and coordinate mitigation efforts among federal, State, and local jurisdictions. This plan also covers 49 special districts that include school, airport, community service, water, recreation and park, sanitation, and other districts.

Kern County and Incorporated Cities Hazardous Waste Management Plan

State Assembly Bill 2948 (1986) authorized local governments to develop comprehensive hazardous waste management plans. The intent of each plan is to ensure that adequate treatment and disposal capacity is available to manage the hazardous wastes generated within the local government's jurisdiction. The Kern County and Incorporated Cities Hazardous Waste Management Plan (Hazardous Waste Plan) was first adopted by Kern County and each incorporated city before September 1988 and was subsequently approved by the California Department of Health Services. The Hazardous Waste Plan was updated and incorporated by reference into the KCGP in 2004 as permitted by Health and Safety Code Section 25135.7(b), and thus must be consistent with all other aspects of the KCGP.

The Hazardous Waste Plan provides policy direction and action programs to address current and future hazardous waste management issues that require local responsibility and involvement in Kern County. In addition, the Hazardous Waste Plan discusses hazardous waste issues and analyzes current and future waste generation in the incorporated cities, County, and state, and federal lands. The purpose of the hazardous Waste Plan is to coordinate local implementation of a regional action to effect comprehensive hazardous waste management throughout Kern County. The action program focuses on development of programs to equitably site needed hazardous waste management facilities; to promote on-site source reduction, treatment, and recycling; and to provide for the collection and treatment of small quantity hazardous waste generators. An important component of the Hazardous Waste Plan is the monitoring of hazardous waste management facilities to ensure compliance with federal and state hazardous waste regulations. The siting criteria and any subsequent environmental documentation required pursuant to CEQA would also ensure the mitigation of adverse impacts associated with the siting of any new hazardous waste facility.

4.11.4 Impacts and Mitigation Measures

Methodology

The potential impacts associated with the proposed Project are evaluated on a qualitative basis through a comparison of the existing land use and the proposed land uses, in consideration of the applicable planning goals identified above. Compliance with the aforementioned policies is illustrated in consistency tables provided in the project Impacts section below. The change in the land use on the project site is significant if the project results in the effects described in the thresholds of significance below. The evaluation of project impacts is based on professional judgment, analysis of the County's land use policies and the significance criteria established in Appendix G of the CEQA Guidelines, which the County has determined appropriate for this Draft EIR.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on land use.

A project could have a have a significant adverse effect on land use if the project would:

- Physically divide an established community;
- Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Impacts and Mitigation Measures

Impact 4.11-1: The project would cause a significant environmental impact due to physically dividing an established community.

The proposed Project would be located on vacant, undeveloped land in the central portion of unincorporated Kern County, with its primary function as a warehouse and distribution facility that may require modifications to the interior design.

The overall project would not physically divide an established community. The project vicinity is characterized by industrial and commercial uses (distribution, storage, and shipping centers), transportation, vacant land, and residential uses primarily east of the project site. The residential uses are comprised of single- and multi-family residences, and are located east of the project site, with the nearest residence approximately 100 feet directly east.

The project site is situated approximately 1.4 miles northeast of SR 99. The project site is approximately 1.7 miles north of the incorporated City of Bakersfield and approximately 3.1 miles east of the incorporated City of Shafter. The unincorporated community of Oildale directly abuts the east side of the project site. However, the project would neither physically encroach into nor divide or restrict access to surrounding communities within the region. In addition, no new roadways or other linear elements that would have the potential to restrict existing access or movement within the local community are proposed. The proposed Project would not physically divide or restrict access to the residential development or any other community. Impacts in this regard are less than significant and mitigation is not required.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant for the project.

Impact 4.11-2: The project would cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

As noted previously, the proposed Project would be located on vacant, undeveloped land in the central portion of unincorporated Kern County, with its primary function as a warehouse and distribution facility that may require modifications to the interior design. The Project would be subject to tenant improvements in order to accommodate specialized storage for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, tools, etc., typically found in a modern distribution/logistics facility to demonstrate conformity with the land use intensity established by the M-1 (Light Industrial) District (see Chapter 19.36 of the Kern County Zoning Ordinance). Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.). Outdoor storage is not proposed as part of this project. As such, specific products and packaged goods that are stored entirely indoors are not expected to conflict with any land use plan, policy, or regulation for the purpose of avoiding or mitigating an environmental effect.

The Metropolitan Bakersfield General Plan and the Kern County Zoning Ordinance establish land use policies and regulations, as well as permitted and conditionally permitted land uses that are applicable to the Project. The following discussion evaluates the Project's conformity to these plans, policies and regulations.

Metropolitan Bakersfield General Plan

Table 4.11-3 presents an evaluation of the project's consistency with the Metropolitan Bakersfield General Plan. The table lists the goals and policies identified above in the regulatory setting and provides analysis on the project's general consistency with overarching policies. Additionally, the table provides goals and policies of issue areas that are presented in more detail in other sections of the Draft EIR. Specifically, the following Policies are required per the Land Use Element of the MBGP:

Policy 36. Require that industrial uses provide design features, such as screen walls, landscaping and height, setback and lighting restrictions between the boundaries of adjacent residential land use designations so as to reduce impacts on residences due to light, noise, sound and vibration.

Policy 37. Street frontages along all new industrial development shall be landscaped.

Implementation of **Mitigation Measure MM 4.1-3** (Section 4.1, *Aesthetics*) will ensure adherence to these policies, requiring the installation of a vegetative barrier along the Airport Drive and Boughton Drive frontages, which would result in a regularly maintained, dense, visual buffer established between the proposed project and the nearest sensitive receptors. This distinct separation from the proposed project from nearby residences will ensure better harmonization of industrial operations near the existing neighborhood.

As evaluated in detail in **Table 4.11-3**, the Project is generally consistent with the goals and policies of the Metropolitan Bakersfield General Plan. Generally, given that land use plans reflect a range of competing interests, a project should be compatible with the plan's overall goals and objectives, but need not be in perfect conformity with every plan policy. Therefore, as demonstrated by the analysis within **Table 4.11-3**, the proposed Project does not result in significant impacts due to a conflict with any land use plan or policy adopted for the purpose of avoiding or mitigating an environmental effect.

Kern County Zoning Ordinance

The existing zoning on-site is classified as M-1 PD H, which includes but is not limited to the following permitted uses: commercial uses and industrial manufacturing or assembly uses. The proposed Project does not include a zone change, and the Project site will remain zoned as M-1 PD H.

Pursuant to Sections 19.36.020.E.2 and 19.36.020.D.1 of the KCZO, the proposed use for industrial storage as a warehouse with incidental office space is permitted on a by-right basis in the M-1 Base District. Areas subject to the PD Combining District overlay typically contain unique site characteristics, environmental conditions, or areas surrounded by sensitive land uses. Therefore, additional review as required under the Precise Development Plan is necessary to ensure development in such areas is compatible with site constraints in addition to the regulations of the base district.

Typically, uses that are permitted on a by-right basis are not required to undergo the public hearing process facilitated by the Kern County Planning and Natural Resources Department – a process that otherwise would be required for conditionally permitted uses. The inclusion of the Precise Development Plan ensures nearby property owners within a 1,000-foot radius of the project, as well as affected departments, agencies and interested parties, are notified of the proposal and allows Planning Department Staff to impose conditions of approval to be considered at a public hearing by the appropriate hearing bodies.

The site's proximity to the Meadows Field Airport requires additional oversight given the H (Airport Approach Height) Combining District overlay, which is intended to minimize aviation hazards by regulating land uses, restricting the height of buildings and vegetation, and specifying design criteria necessary to promote aviation safety and to implement the requirements of the adopted ALUCP. The proposed Project has a maximum height of 56 feet, which conforms to Section 19.36.080, Height Limits, in the M-1 Base District. The M-1 District includes the following development standards relevant to the project site:

- Buildings and structures shall not exceed six (6) stories or seventy-five (75) feet, unless the building is set back from each street, alley, and lot line at least one (1) foot for each three (3) feet of height above six (6) stories or seventy-five (75) feet.
- No building or structure shall exceed ten (10) stories or one hundred and thirty-five (135) feet.

However, Section 19.76.080, Height Limits, of the H Combining District states no building, structure, plant, or tree in an H District shall exceed thirty-five (35) feet in height, except as may be approved pursuant to Sections 19.76.130 and 19.76.140 of the H Combining District chapter, and in no case shall the height exceed the height allowed by the base district with which the H District is combined. Section 19.76.130 lists the Site Development Plan Review process that the proposed project is currently undergoing and Section 19.76.140 lists the minimum requirements for the Site Development Plan Review application, which includes the following particular condition related to height:

- E. For any proposed structure or vegetation that will exceed a height of thirty-five (35) feet, a letter from the Federal Aviation Administration, which shall state that the proposed development does not constitute a hazard to air traffic and does not violate any federal regulations. The letter shall also include any special conditions imposed by the Federal Aviation Administration.

The IPG Kern County 52 Holdings, LLC (Project proponent) has secured letters from the Federal Aviation Administration (FAA) that indicate Determinations of No Hazards to Air Navigation for multiple coordinates within the proposed project site boundary (Appendix G.2). Additional discussion is provided in Section 4.9, *Hazards and Hazardous Materials*, of this Draft EIR.

Nonetheless, the proposed Project includes a request for a Zone Variance to account for the proposed 56-foot-tall warehouse building where 35 feet is authorized. As noted above under the *Regulatory Setting – Local – Kern County Zoning Ordinance* Section, the proposed project must demonstrate conformity with the findings for approval listed for both the Precise Development Plan and Zone Variance that will ultimately be considered by the Board of Supervisors. With the approval of the above-mentioned Precise Development Plan and zone variance, the Project would be consistent with applicable land use policies in the MBGP. Potential impacts related to the variance would include impacts to aviation due to increased height limits, which are also addressed in Section 4.9, *Hazards and Hazardous Materials*. Even with the variance and Precise Development Plan, there would be no environmental impacts associated with increased height, and impacts would be less than significant.

Kern County Airport Land Use Compatibility Plan

As noted previously, the proposed Project is located within the SOI of the Meadows Field Airport, located approximately 0.6 mile west of the project, as shown in **Figure 4.11-3**. Meadows Field Airport is recognized as an Airport Influence Area, in which policies of the Kern County ALUCP apply to the proposed Project.

Previously shown, **Figure 4.11-4** shows the compatibility criteria for land uses in the vicinity of airports. The proposed Project is located in zone B1, Approach/Departure Zone and Adjacent to Runway, and zone C, Common Traffic Pattern, shown in **Figure 4.11-3**. Zone B1 is more restrictive; therefore, will take precedence over zone C. Allowable density for this zone for uses other than residential is 60 people per acre. Required open land for this zone is 30%. Warehousing, truck terminals, two-story office buildings, and automobile parking, all uses in the proposed Project, are normally accepted uses in this zone.

The proposed Project, a logistics facility and associated infrastructure, includes construction of two single-story buildings. These uses are all in line with the normally accepted uses for zone B1. The proposed Project covers 43.2% of the site, allowing for well over the required 30% Open Land. The proposed Project includes an estimated 437 number of employees. Given the project site acreage (49.05), the density for the proposed Project is approximately 8.8 people per acre, well below the allowable 60 people per acre in zone B1. This demonstrates that the proposed Project is compatible with the B1 zone and does not conflict with the Kern County ALUCP.

Outside of the land use compatibility criteria, any buildings and operations within the proposed Project will need to ensure there are no frequency conflicts with the airport operations. Aviation uses radio frequency spectrum resources to communicate and provide a safe and efficient aerospace system. It will be necessary to ensure operations within the proposed project do not conflict with these radio frequencies. The implementation of **Mitigation Measure MM 4.11-1** will reduce potential conflicts with airport operations frequencies to less than significant.

Additionally, because the proposed Project is within the Approach/Departure Zone and Adjacent to Runway, the airspace above the Project location is important and is accounted for with the site zoning containing the H (Airport Approach Height Combining) District. Due to the proposed project's height of 56 feet exceeding the 35-foot height maximum set forth by the combining H District, a Zone Variance request is included as part of the overall project. Nonetheless, per Planning and Natural Resources Development Standards, a standard condition of approval will require an aviation easement to be recorded for the affected portions of the project site within the ALUCP SOI to give Meadows Field Airport air rights over the proposed Project property. An aviation easement is a legal agreement in which property owners surrender air rights over their property to the government. This type of easement restricts property owners from building over a specific height and waives their right to file a suit against the pilots or owners of an aircraft. It also limits the liability of airline/aircraft operators. The implementation of **Mitigation Measure MM 4.11-2** will reduce potential conflicts with air space to less than significant.

Mitigation Measures

- MM 4.11 -1** Prior to the issuance of building permits, the operator shall consult with the Meadows Field Airport to identify the appropriate Frequency Management Office officials to coordinate the use of telemetry to avoid potential frequency conflicts with airport operations.
- MM 4.11-2** Prior to the issuance of building permits, the project operator shall submit to the Kern County Planning and Natural Resources Department an executed aviation easement, approved as to form by County Counsel, for the benefit of the Meadows Field Airport.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.11-1** and **MM 4.11-2**, impacts would be less than significant.

4.11.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project site.

As discussed previously, the proposed Project would be located on vacant, undeveloped land in the central portion of unincorporated Kern County, with its primary function as a warehouse and distribution facility that may require future modifications to the interior design. Similar land uses in the vicinity have undergone similar land use and planning review, and the project is demonstrably compatible with these previously approved uses.

The projects considered in the cumulative analysis for this project are described in **Chapter 3, Project Description, Table 3-4, Cumulative Projects**. The geographic scope for cumulative land use and planning impacts consists of the Metropolitan Bakersfield Plan Area. This geographic scope of analysis is appropriate because land use and planning resources in Kern County are expected to be similar to those in the project site because of their proximity. Additionally, as discussed in Section 4.14, *Population and Housing*, other projects would adhere to MBGP land use policies and implementation measures, including installing landscaping and visual buffers between industrially designated land and the nearest residences and sensitive receptors. The proposed project would implement **Mitigation Measure MM 4.1-3**, requiring installation of a vegetative barrier along the length of the project site that faces the nearest neighborhoods and residences, thereby minimizing the cumulative encroachment of increased industrial development onto residential areas. These foreseeable projects would also be required to adhere to environmental review at a project-level basis, including implementing similar mitigation measures such as **Mitigation Measures MM 4.11-1** and **MM 4.11-2** that are being required of the proposed project, depending on those other project's proximity to the Meadows Field Airport. The Project, in combination with other projects, are consistent with the land use of the area and do not divide the community. Therefore, the Project, with implementation of **Mitigation Measures MM 4.11-1** and **MM 4.11-2**, would result in a less than significant cumulatively considerable impact to land use and planning.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.1-3**, (Section 4.1, *Aesthetics*, for full mitigation measure text), **MM 4.11-1** and **MM 4.11-2** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.1-3**, **MM 4.11-1** and **MM 4.11-2**, cumulative impacts would be less than significant after mitigation.

Table 4.11-3: Project Consistency with Metropolitan Bakersfield County General Plan for Land Use

Goals and Policies	Project Consistency
Chapter II. Land Use Element	
Goal 1. Accommodate new development which captures the economic demands generated by the marketplace and establishes Bakersfield's role as the capital of the southern San Joaquin Valley.	CONSISTENT. The proposed Project would develop a warehouse distribution facility. The facility would primarily serve as a high cube and cold storage warehouse to facilitate material handling equipment and storage uses. The proposed Project promotes new development consistent with the economic demands of the area. As describes in Section 3.7.3, <i>Project Operations and Maintenance Activities</i> , of the Project Description, the proposed Project would create 437 jobs.
Goal 2. Accommodate new development which provides a full mix of uses to support its population.	CONSISTENT. See Land Use Element, Goal 1, above.
Goal 3. Accommodate new development which is compatible with and complements existing land uses.	CONSISTENT. The proposed Project accommodates new development that, as demonstrated in this chapter, is consistent with exiting land uses. The existing land use designation of the site is LI (Light Industrial) and the Project does not propose any land use designation change.
Goal 4. Accommodate new development which channels land uses in a phased, orderly manner and is coordinated with the provision of infrastructure and public improvements.	CONSISTENT. The proposed Project consists of two two-story buildings and construction is expected to last 24 months. As described in Chapter 3, <i>Project Description</i> , the project will include the necessary infrastructure and public improvements.
Goal 6. Accommodate new development that is sensitive to the natural environment, and accounts for environmental hazards.	CONSISTENT. The proposed Project includes the new development of a warehouse distribution facility. As outlined in Section 4.9, <i>Hazards and Hazardous Materials</i> , environmental hazards are accounted for and will have less than significant impacts after mitigation.
Goal 7. Establish a built environment which achieves a compatible functional and visual relationship among individual buildings and sites.	CONSISTENT. Aesthetic impacts are evaluated in Section 4.1, <i>Aesthetics and Visual Resources</i> , of this Draft EIR. The proposed Project would utilize landscaping and screening to further blend the Project with its surroundings. MM 4.1-1 through MM 4.1.3 require that the proposed Project comply with site review and design and landscaping requirements as required by County regulations. Additionally, MM 4.1-4 and MM 4.1-5 requires that the proposed Project comply with the Dark Skies Ordinance and submit an outdoor lighting plan so as to reduce impacts to glare and lighting as much as possible.
Goal 8. Target growth companies that meet clean air requirements and create sustainable employment in jobs paying higher wages.	CONSISTENT. Impacts to air quality are analyzed in Section 4.3, <i>Air Quality</i> , in this Draft EIR. The proposed project would be consistent with all federal, State, and local regulations related to air quality. Impacts related to employment are evaluated in Section 4.14, <i>Population and Housing</i> . As stated in Land Use Element, Goal 3, the proposed project would create 437 jobs.

Goals and Policies	Project Consistency
Policy 8. The Kern County and Incorporated Cities Hazardous Waste Management Plan and Final Environmental Impact Report serves as the policy document guiding all facets of hazardous waste.	CONSISTENT. Impacts to hazardous waste are analyzed in Section 4.9, <i>Hazards and Hazardous Materials</i> . The proposed project would be required to comply with all applicable federal, State, and local policies and regulations.
Policy 31. Allow for a variety of industrial uses, including land-extensive mineral extraction and processing, heavy manufacturing, light manufacturing, warehousing and distribution, transportation-related, and research and development uses.	CONSISTENT. The proposed Project will allow for the creation of a warehouse distribution facility, thus fitting into a variety of industrial uses.
Policy 32. Protect existing industrial designations from incompatible land use intrusions.	CONSISTENT. The proposed Project is in an area that has a land use designation of LI (Light Industrial). The proposed Project will not change this land use designation, thus protecting existing industrial designations.
Policy 33. Encourage the efficient use of existing industrial land uses through consolidation of building and storage facilities.	CONSISTENT. The proposed Project makes efficient use of existing industrial land uses in that it includes a two-story warehouse distribution facility, with the primary function being high cube and cold storage warehousing to facilitate material handling equipment and storage uses.
Policy 34. Provide for the clustering of new industrial development adjacent to existing industrial uses and along major transportation corridors.	CONSISTENT. The proposed Project includes an industrial facility where land uses immediately surrounding the Project site include industrial uses and are surrounded by existing transportation corridors.
Policy 35. Encourage upgrading of visual character of heavy manufacturing industrial areas through the use of landscaping or screening-of visually unattractive buildings and storage areas.	CONSISTENT. With the implementation of MM 4.1.1 through MM4.1.4, the visual character of the proposed Project will be upgraded through the use of landscaping and screening.
Policy 36. Require that industrial uses provide design features, such as screen walls, landscaping and height, setback and lighting restrictions between the boundaries of adjacent residential land use designations so as to reduce impacts on residences due to light, noise, sound and vibration.	CONSISTENT. See Land Use Element, Goal 7, above. With the implementation of MM 4.1.1 through MM 4.1.4, the visual character of the proposed Project will be upgraded through the use of landscaping and screening. Section 4.1, <i>Aesthetics</i> , MM 4.1-3, would ensure a vegetative barrier is installed along the Airport Drive and Boughton Drive project frontages, providing a greater visual buffer between the site and the nearby residences.
Policy 37. Street frontages along all new industrial development shall be landscaped.	CONSISTENT. See Land Use Element, Goal 7, and Policy 36 above. With the implementation of MM 4.1-2, landscaping will be required along Airport Drive and Boughton Drive frontages.

Goals and Policies	Project Consistency
Policy 38. Minimize impacts of industrial traffic on adjacent residential parcels through the use of site plan review and improvement standards.	CONSISTENT. The proposed Project has been designed so that no truck docks face the residences located east of the site. Additionally, improvements to roadways would be required to adhere to Kern County Public Works Department development standards.
Policy 76. Provide for a mix of land uses which meets the diverse needs of residents; offers a variety of employment opportunities; capitalizes, enhances, and expands upon existing physical and economic assets; and allows for the capture of regional growth.	CONSISTENT. The proposed Project consists of a facility that would operate 24 hours a day, 365 days a year. The facility would employ approximately 437 employees over the course of up to three shifts, with additional indirect/induced economic impacts from the project supporting approximately 159 additional jobs.
Policy 79. Provide for an orderly outward expansion of new "urban" development (any commercial, industrial, and residential development having a density greater than one unit per acre) so that it maintains continuity of existing development, allows for the incremental expansion of infrastructure and public services, minimizes impacts on natural environmental resources, and provides a high quality environment for living and business.	CONSISTENT. See Land Use Element, Policy 38, above. The proposed Project consists of a logistics facility that would expand "urban" development and allow for the incremental expansion of infrastructure.
Policy 82. Preserve existing significant sound residential neighborhoods, commercial districts, and industrial areas.	CONSISTENT. The proposed Project does not take away any existing residential neighborhoods or commercial districts. The proposed Project is within the MBGP land use designation of LI (Light Industrial) and will remain in this land use designation.
Policy 86. Encourage infill of vacant parcels.	CONSISTENT. The proposed Project site is currently vacant, therefore development on the site encourages infill of vacant parcels.
Policy 95. When planning for new development, coordinate with utility companies to designate future or potential electrical transmission line corridors as needed to serve the metropolitan area.	CONSISTENT. Electricity would be supplied to the Project site by PG&E. The Project proposes to use the existing electricity grid, and service laterals would be extended to the Project site from existing utility facilities along Boughton Drive and Airport Drive. It is anticipated that there are sufficient planned electricity supplies in the PG&E service area for the increase in energy demands resulting from the proposed Project. Additionally, the Project would implement MM 4.19-1, requiring coordination with PG&E staff to determine specific requirements regarding any potential electric service or facility issues needed.
Chapter III. Circulation Element	
Streets	

Goals and Policies	Project Consistency
Goal 1. Provide a safe and efficient street system that links all parts of the area for movement of people and goods.	CONSISTENT. Transportation and traffic analysis is provided in Section 4.17, <i>Transportation and Traffic</i> , of this Draft EIR. The proposed Project includes roadway improvements and mitigation measures that will address deficiencies in the roadways and provide a safe and efficient street system that links the Project site to the rest of the area. Implementation of MM 4.17-3, and MM 4.17-4 would ensure the preparation of a Transportation Demand Management Plan and Traffic Control Plan, as well as any off-site intersection improvements required to maintain the level of service standard for the surrounding area.
Goal 2. Provide for safe and efficient motorized, non-motorized, and pedestrian traffic movement.	CONSISTENT. See Circulation Element, Goal 1, above.
Goal 3. Minimize the impact of truck traffic on circulation, and on noise sensitive land uses.	CONSISTENT. See Circulation Element, Goal 1, above.
Policy 3. Provide additional right-of-way pavement width to accommodate turn lands at intersections	CONSISTENT. See Circulation Element, Goal 1, above.
Policy 5. Place traffic signals to minimize vehicular delay.	CONSISTENT. See Circulation Element, Goal 1, above.
Policy 6. Design and locate site access driveways to minimize traffic disruption where possible considering items such as topography, past parcelization and other factors.	CONSISTENT. See Circulation Element, Goal 1, above.
Policy 12. Maintain the integrity of the circulation system.	CONSISTENT. See Circulation Element, Goal 1, above.
Policy 16. Require that truck access to commercial and industrial properties be designed to minimize impacts on adjacent residential parcels	CONSISTENT. See Circulation Element, Goal 1, above.
Policy 17. Require buildings expected to be serviced by delivery trucks to provide off-street facilities for access and parking.	CONSISTENT. As described in Section 3.1, <i>Project Overview</i> , the proposed project would include approximately 543 automobile and 312 Truck Trailer on-site parking spaces. Additionally, the proposed project would include 108 EV Charging Stations and 14 ADA Accessible parking spots.
Policy 22. Design transportation improvements to minimize noise impacts on adjacent uses.	CONSISTENT. As described in Section 4.13, <i>Noise</i> , the proposed project would not increase construction or operation related noise levels in excess of established standards.

Goals and Policies	Project Consistency
Policy 34. Minimize the impacts of land use development on the circulation system. Review all development plans, rezoning applications, and proposed general plan amendments with respect to their impact on the transportation system, and require revisions as necessary.	CONSISTENT. See Circulation Element, Goal 1, above.
Policy 37. Require new development and expansion of existing development to pay for necessary access improvements, such as street extensions, widenings, turn lanes, signals, etc., as identified in the transportation impact report as may be required for a project.	CONSISTENT. See Circulation Element, Goal 1, above.
Policy 39. Require new development and expansion of existing development to pay or participate in its pro rata share of the costs of expansions in area-wide transportation facilities and services which it necessitates.	CONSISTENT. As described in Section 4.17, <i>Transportation and Traffic</i> , the Traffic Study has informed transportation impacts from development. The implementation of MM 4.17-4 would require that the Project prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department – Traffic Division and the California Department of Transportation offices for District 6, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook.
Bikeways	
Policy 5. Consider bicycle safety when implementing improvements for automobile traffic operations.	CONSISTENT. See Circulation Element, Policy 39, above.
Policy 7. Provide bicycle parking facilities at activity centers such as shopping centers, employment sites, and public buildings.	CONSISTENT. See Circulation Element, Policy 39, above.
Parking	
Goal 1. Provide an efficient parking system to respond to the needs of motorists.	CONSISTENT. See Circulation Element, Policy 17, above.
Goal 2. Satisfy parking requirements in all new developments (residential, commercial, industrial, etc.) through off-street facilities.	CONSISTENT. See Circulation Element, Policy 17, above.

Policy 1. Ensure that adequate on-site parking supply and parking lot circulation is provided on all site plans in accordance with the adopted parking standards.	CONSISTENT. See Circulation Element, Policy 17, above.
Policy 2. Discourage the intrusion of non-neighborhood parking in residential areas.	CONSISTENT. See Circulation Element, Policy 17, above.
Chapter V. Conservation Element	
Goal 1. Conserve and enhance Bakersfield's biological resources in a manner which facilitates orderly development and reflects the sensitivities and constraints of these resources.	CONSISTENT. As discussed in Section 4.4, <i>Biological Resources</i> , the proposed Project would have the potential to significantly affect biological resources in and around the Project site. In response, the proposed Project includes MM 4.4-1 through MM 4.4-13 with the intent to reduce potential impacts to all species both during Project construction and operation. Additionally, the proposed Project would be developed and operated in accordance with all local, State, and federal laws pertaining to the preservation of sensitive species.
Policy 1. Direct development away from "sensitive biological resource" areas, unless effective mitigation measures can be implemented.	CONSISTENT. See Biological Resources, Goal 1, above.
Goal 1. Provide for the planned management, conservation, and wise utilization of agricultural land in the planning area.	CONSISTENT. Impacts to agricultural resources are discussed in Section 4.2, <i>Agriculture Resources</i> . Impacts to agricultural resources are less than significant and the Project does not convert any agricultural lands.
Policy 6. Continue implementing land grading ordinances that reduce soil erosion/siltation commonly associated with land development.	CONSISTENT. See Soils and Agriculture, Policy 7, below.
Policy 7. Land use patterns, grading, and landscaping practices shall be designed to prevent soil erosion while retaining natural watercourses when possible.	CONSISTENT. As described in Section 4.7, <i>Geology and Soils</i> , the proposed Project would be compliant with all applicable ordinances of the Kern County Building Code and the California Building Code (CBC). Additionally, MM 4.7-1 requires the Project proponent to limit grading to the minimum area necessary for construction. Prior to the initiation of construction, the Project proponent shall retain a California registered professional engineer to approve the final grading earthwork and foundation plans prior to construction. For MM 4.7-2, prior to the issuance of building or grading permits, the Project proponent shall conduct a full geotechnical study to evaluate soil conditions and submit the study to the Kern County Public Works Department for review and

Goals and Policies	Project Consistency
	approval. Furthermore, as described in Section 4.10, <i>Hydrology and Water Quality</i> , MM 4.10-2 would ensure that prior to any grading, a project-specific hydrologic study and final drainage plan shall be completed, to ensure best management practices that would prevent soil erosion.
Policy 12. Prohibit premature removal of ground cover in advance of development and require measures to prevent soil erosion during and immediately after construction.	CONSISTENT: Section 4.10, <i>Hydrology and Water Quality</i> , evaluates the potential degradation of surface or groundwater quality. MM 4.10-1 requires that before a grading permit, a Stormwater Pollution Prevention Plan be incorporated into final design specifications and construction contracts. This plan must show the minimization of vegetation removal, and other best management practices for soil erosion prevention, such as implementing sediment controls.
Policy 13. Minimize the alteration of natural drainage and require development plans to include necessary construction to stabilize runoff and silt deposition through enforcement of grading and flood protection ordinances.	CONSISTENT Section 4.10, <i>Hydrology and Water Quality</i> , MM 4.10-2 would ensure that prior to any grading, a project-specific hydrologic study and final drainage plan shall be completed, to ensure best management practices that would prevent soil erosion. It requires that engineering recommendations be incorporated into the project design, based on stormwater modeling.
Policy 15. Buffers such as setbacks, berms, greenbelts, and open space areas shall be established to separate farmland from incompatible urban uses.	CONSISTENT. As described in Chapter 3, <i>Project Description</i> , the proposed project would include 359,26 square feet (8.25 acres) of landscaping and irrigation to provide visual screening between the development and surrounding uses, particularly the residential uses across Airport Drive. Proposed landscaping would exceed the 5 percent landscaping requirement of Section 19.86.060 of the Kern County Zoning Ordinance.
Policy 16. Future development which involves in-fill of the urban area as opposed to development on the urban fringes shall be encouraged.	CONSISTENT. The project is being proposed on an industrially designated and zoned site, with industrially zoned and developed land to the North and South, as well as existing commercial and industrial development to the west and east. Although land to the north and partially to the south are vacant, the proposed use is compatible with the generally urbanized area and will be developed with a similarly intensive land use as a warehouse and logistics facility.
Water Resources	
Policy 2. Minimize the loss of water which could otherwise be utilized for groundwater recharge purposes and benefit planning area groundwater aquifers from diversion to locations outside the area.	CONSISTENT. Section 4.10, <i>Hydrology and Water Quality</i> , of this Draft EIR, provides an analysis of water supplies available to serve the project. Unmetered water wells cannot be used as a source of groundwater for the permit activity. Groundwater may only be used in a permitted activity from a water well equipped with a water meter.
Policy 6. Protect planning area groundwater resources from further quality degradation.	CONSISTENT. See Section 4.10, <i>Hydrology and Water Quality</i> , of this Draft EIR which evaluates the Project's impact on groundwater quality. MM 4.10-1 would require the implementation of best management practices for pollution control.
Air Quality	

Goals and Policies	Project Consistency
<p>Policy 1. Comply with and promote San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) control measures regarding Reactive Organic Gases (ROG). Such measures are focused on: (a) steam driven well vents, (b) Pseudo-cyclic wells, (c) natural gas processing plant fugitives, (d) heavy oil test stations, (e) light oil production fugitives, (f) refinery pumps and compressors, and (g) vehicle inspection and maintenance.</p>	<p>CONSISTENT. Impacts to air quality are analyzed in Section 4.3, <i>Air Quality</i>, in this Draft EIR. As shown in Tables 4.3-11 and 4.3-12, the proposed Project would not generate ROG emissions in excess of thresholds.</p>
<p>Policy 2. Encourage land uses and land use practices which do not contribute significantly to air quality degradation.</p>	<p>CONSISTENT. See Air Quality, Policy 1, above.</p>
<p>Policy 3. Require dust abatement measures during significant grading and construction operations.</p>	<p>CONSISTENT. Impacts to air quality are evaluated in Section 4.3, Air Quality, in this Draft EIR. As outlined in MM 4.3-2, the proposed Project would be required to prepare a comprehensive Fugitive Dust Control Plan to be submitted and approved by the Kern County Planning and Natural Resources Department prior to issuance of grading and building permits.</p>
<p>Policy 4. Consider air pollution impacts when evaluating discretionary permits for land use proposals. Considerations should include:</p> <ul style="list-style-type: none"> a) Alternative access routes to reduce traffic congestion. b) Development phasing to match road capacities. c) Buffers including increase vegetation to increase emission dispersion and reduce impacts of gaseous or particulate matter on sensitive uses. 	<p>CONSISTENT. See Air Quality, Policy 1, above.</p>
<p>Policy 5. Consider the location of sensitive receptors such as schools, hospitals, and housing developments when locating industrial uses to minimize the impact of industrial sources of air pollution.</p>	<p>CONSISTENT. Impacts to air quality are evaluated in Section 4.3, <i>Air Quality</i>, in this Draft EIR. Impacts to sensitive receptors, including schools, hospitals, and housing developments, are evaluated in Section 4.3, <i>Air Quality</i>, of this Draft EIR.</p>
<p>Policy 13. Consider establishing priority parking areas for carpoolers in projects with relatively large numbers</p>	<p>CONSISTENT. See Circulation Element, Policy 39, above.</p>

Goals and Policies	Project Consistency
of employees to reduce vehicle miles traveled and improve air quality.	
Policy 15. Promote the use of bicycles by providing attractive bicycle paths and requiring provision of storage facilities in commercial and industrial projects.	CONSISTENT. See Circulation Element, Policy 39, above.
Policy 22. Require the provision of secure, convenient bike storage racks at shopping centers, office buildings, and other places of employment in the Bakersfield Metropolitan area.	CONSISTENT. See Circulation Element, Policy 39, above.
Policy 23. Encourage the provision of shower and locker facilities by employers, for employees who bicycle or jog to work.	CONSISTENT. See Circulation Element, Policy 39, above.
Policy 29. Encourage the use of alternative fuel and low or zero emission vehicles.	CONSISTENT. See Circulation Element, Policy 39, above.
Chapter VII. Noise Element	
Goal 1. Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained.	CONSISTENT. Section 4.13, <i>Noise</i> , projected noise levels are identified and the industrial uses associated with the proposed Project would not expose sensitive receptors to exterior noise levels that exceed 65 dBA. In order to further reduce impacts to excess noise, the proposed Project would implement MM 4.13-1 through MM 4.13-4, which include limitations on allowed construction hours, operations procedures, the appointment of a Noise Disturbance Coordinator, and applicable rules and regulations to be place on all grading and building permits.
Goal 2. Protect the citizens of the planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources.	CONSISTENT. See Noise Element, Goal 1, above.
Policy 1. Identify noise-impact areas exposed to existing or projected noise levels exceeding 65 dB CNEL (exterior) or the performance standards described in Table VII-2. The noise exposure contour maps on file at the City of Bakersfield and County of Kern indicate	CONSISTENT. See Noise Element, Goal 1, above.

Goals and Policies	Project Consistency
<p>areas where existing and projected noise exposures exceed 65 dB CNEL (exterior) for the major noise sources identified.</p>	
<p>Policy 2. Prohibit new noise-sensitive land uses in noise-impacted areas unless effective mitigation measures are incorporated into project design to reduce noise to acceptable levels.</p>	<p>CONSISTENT. The project is being proposed on an industrially designated and zoned site, with industrially zoned and developed land to the north and south, as well as existing commercial and industrial development to the west and east. Although land to the north and partially to the south are vacant, the proposed use is compatible with the generally urbanized area and will be developed with a similarly intensive land use as a warehouse and logistics facility. The proposed use is not, by nature, a noise-sensitive land use such as residences, a school or convalescent facility. The Light Industrial (LI) designation and M-1 (Light Industrial) zoning will ensure on-site operations of warehousing will be predominantly enclosed, thereby minimizing noise impacts. In order to further reduce impacts to excess noise, the proposed Project would implement MM 4.13-1 through MM 4.13-4, which include limitations on allowed construction hours, operations procedures, the appointment of a Noise Disturbance Coordinator, and applicable rules and regulations to be place on all grading and building permits.</p>
<p>Policy 3. Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will exceed the performance standards contained within Table VII-2 in areas containing residential or other noise-sensitive land uses.</p>	<p>CONSISTENT. The proposed Project currently has a land use designation of Light Industrial (LI). The nearest sensitive receptors are the Park Meadows Apartment community located approximately 102 feet east of the Project site. The industrial uses associated with the proposed Project would not expose sensitive receptors to exterior noise levels that exceed 65 dBA. Furthermore, the CALGreen noise standards which are applied to new construction ensure that building materials would perform to a standard that could demonstrate that interior noise levels do not exceed 50 dBA. In order to further reduce impacts to excess noise, the proposed Project would implement MM 4.13-1 through MM 4.13-4, which include limitations on allowed construction hours, operations procedures, the appointment of a Noise Disturbance Coordinator, and applicable rules and regulations to be place on all grading and building permits.</p>
<p>Implementation Measure 3. Require development of proposed residential or other noise sensitive land uses in noise-impacted area to comply with the noise standards of 65 dB CNEL or less in outdoor activity areas and 45 dB CNEL or less within interior living spaces and the performance standards within Table VII-2.</p>	<p>CONSISTENT. See Noise Element, Goal 1, above.</p>
<p>Implementation Measure 4. Require proposed commercial and industrial uses or operations to be designed or arranged so that they will not subject residential or other noise sensitive land uses to exterior</p>	<p>CONSISTENT. Section 4.13, <i>Noise</i>, contains mitigation measures that would reduce short-term noise levels (MM 4.13-1) during construction, by requiring equipment staging and laydown to be located at the furthest practical distance from residential uses. Based on the analysis in this section, noise levels would not exceed MBGP noise thresholds.</p>

Goals and Policies	Project Consistency
noise levels in excess of 65 dB CNEL and interior noise levels in excess of 45 dB CNEL and so that impacts on noise sensitive uses shall not exceed the performance standards in Table VII-2.	
Chapter VIII. Safety Element	
Policy 1. The adopted Kern County, California Multi-Hazard Mitigation Plan is incorporated by reference. This multi-jurisdictional plan, approved in compliance with the Disaster Mitigation Act of 2000, provides long-term planning to reduce the impacts of future disasters.	CONSISTENT. As discussed in Section 4.9, <i>Hazards and Hazardous Materials</i> , the proposed Project would not have significant impacts, after mitigation, related to hazardous materials, fire, or emergency medical services. Implementation of MM 4.9-1 through MM 4.9-12 ensures that the proposed Project would continue to implement and monitor the proposed handling, storage, transport, and disposal techniques and methods of any hazardous materials on-site in accordance with all applicable State and local health safety codes and would require the preparation and dissemination of a Hazardous Materials Business Plan for the proposed Project.
Implementation. The adopted multi-jurisdictional Kern County, California Multi-Hazard Mitigation Plan, as approved by FEMA, shall be used as a source document for preparation of environmental documents pursuant to CEQA, evaluation of project proposals, formulation of potential mitigation and identification of specific actions that could, if implemented, mitigate impacts from future disasters and other threats to public safety.	CONSISTENT. See Safety Element, Policy 1, above.
Seismic Safety	
Goal 1. Substantially reduce the level of death, injury, property damage, economic and social dislocation and disruption of vital services that would result from earthquake damage.	CONSISTENT. As described in Section 4.7, <i>Geology and Soils</i> , the proposed Project could be subject to final design review and required to implement all design requirements included in the project-specific Geotechnical Evaluation encompassing earthwork, site preparation, site-specific seismic design considerations, foundation specifications, exterior flatwork, underground utilities, pavement, soil corrosivity and concrete, drainage, and protection measures for buried metal. In addition, the proposed project would implement MM 4.7-1 through MM 4.7-7, which would require the retention of a qualified California registered professional engineer to design and approve all project plans to be able to withstand probable seismically induce ground shaking, as well as to ensure the building has been stabilized against occurrences of liquefaction.
Policy 5. Incorporate planning for incidents affecting critical facilities into contingency plans for disaster response and recovery.	CONSISTENT. See Public Safety, Goal 2, below.

Goals and Policies	Project Consistency
Policy 9. Adopt and maintain high standards for seismic performance of buildings, through prompt adoption and careful enforcement of the most current seismic standards of the Uniform Building Code.	CONSISTENT. See Seismic Safety, Goal 1, above. Additionally, the proposed Project would be subject to all applicable ordinances of the Kern County Building Code.
Policy 11. Require site-specific studies to locate and characterize specific fault traces within an Alquist-Priolo Earthquake Fault Zone for all construction designed for human occupancy.	CONSISTENT. As described in Section 4.7, <i>Geology and Soils</i> , the proposed project is not located within an Alquist-Priolo Earthquake Fault Zone.
Implementation Measure 3. Require structures that are within the plan area and are subject to Building Department review to adhere to the most current seismic standards adopted as part of the Uniform Building Code.	CONSISTENT. See Seismic Safety, Goal 1, above. Additionally, the proposed Project would be subject to all applicable ordinances of the Kern County Building Code.
Public Safety	
Goal 2. Ensure that adequate police and fire services and facilities are available to meet the needs of current and future metropolitan residents through the coordination of planning and development of metropolitan police and fire facilities and services.	CONSISTENT. Impacts regarding police and fire services are evaluated in Section 4.15, <i>Public Services</i> , of this Draft EIR. Consistent with this measure, impacts to emergency public services are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.
Goal 4. Assure that fire, hazardous substance regulation and emergency medical service problems are continuously identified and addressed in a proactive way, in order to optimize safety and efficiency.	As discussed in Section 4.9, <i>Hazards and Hazardous Materials</i> , the proposed Project would not have significant impacts, after mitigation, related to hazardous materials, fire, or emergency medical services. Implementation of MM 4.9-1 through MM 4.9-12 ensures that the proposed Project would continue to implement and monitor the proposed handling, storage, transport, and disposal techniques and methods of any hazardous materials on-site in accordance with all applicable State and local health safety codes and would require the preparation and dissemination of a Hazardous Materials Business Plan for the proposed Project.
Policy 2. Require discretionary projects to assess impacts on police and fire services and facilities.	CONSISTENT. See Public Safety, Goal 2, above.
Policy 7. Enforce ordinances regulating the use/manufacture/sale/ transport/disposal of hazardous substances, and require compliance with state and federal laws regulating such substances.	CONSISTENT. See Public Safety, Goal 4, above.

Goals and Policies	Project Consistency
Policy 8. The Kern County and Incorporated Cities Hazardous Waste Management Plan and Final Environmental Impact Report serves as the policy document guiding all facets of hazardous waste.	CONSISTENT. See Public Safety, Goal 4, above.
Policy 12. Where recommended by appropriate local, State or Federal agencies for discretionary projects, soils shall be tested for concentrations of agricultural chemicals prior to grading permit approval, whenever feasible. Contaminated soils shall be excavated and disposed of at a certified hazardous waste disposal facility whenever necessary.	CONSISTENT. Contaminated soils are discussed in Section 4.9, <i>Hazards and Hazardous Materials</i> . A Phase I Environmental Site Assessment (Phase I ESA) was prepared for the proposed project and did not find any current or controlled Recognized Environmental Concerns (RECs) on-site.
Policy 13. Fugitive dust emissions shall be controlled through applicable requirements (Regulation VIII) set forth by the San Joaquin Valley Unified Air Pollution Control District, including but not limited to; irrigation, paving of construction roads, and limiting grading activities during periods of high wind. These practices would reduce potential adverse health effects resulting from the development of agricultural property.	CONSISTENT. Impacts to air quality are evaluated in Section 4.3, <i>Air Quality</i> , in this Draft EIR. As outlined in MM 4.3-2, the proposed Project would be required to prepare a comprehensive Fugitive Dust Control Plan to be submitted and approved by the Kern County Planning and Natural Resources Department prior to issuance of grading and building permits.
Policy 15. Fugitive dust emissions shall be controlled through applicable requirements set forth by the San Joaquin Valley Unified Air Pollution Control District (Regulation VIII), including but not limited to; irrigation, paving of construction roads, and limiting grading activities during periods of high wind. These practices would reduce potential adverse health effects as a result of exposure to Coccidioidomycosis.	CONSISTENT. See Public Safety, Policy 13, above.
Policy 16. All new discretionary development projects shall be subject to environmental and design review on a site-specific, project-by-project basis, including but not limited to, an assessment to determine whether hazardous materials present potential health affects to human health as required by the Department of Environmental Services.	CONSISTENT. See Public Safety, Policy 12, above.

Chapter X. Public Services and Facilities Element	
Goal 1. Maintain a coordinated planning and implementation program for the provision of public utilities to the planning area.	CONSISTENT. Impacts to public utilities are evaluated in Section 4.19, <i>Utilities and System Services</i> , in this Draft EIR. The proposed Project would not have a significant impact on public utilities. The incremental effects of the Project would also not be substantial enough to result in a cumulatively considerable impact on utilities and service systems with implementation of MM 4.19-1 through MM 4.19-5.
Goal 2. Coordinate the planning and implementation of planning area municipal-type utility facilities and services.	CONSISTENT. See General Utility Services, Goal 1, above.
Policy 5. Require all new development to pay its pro rata share of the cost of necessary expansion in municipal utilities, facilities and infrastructure for which it generates demand and upon which it is dependent.	CONSISTENT. MM 4.15-1 ensures that the Project will work with the County to determine how the use of sales and taxes from construction can be maximized. As an alternative, the Project proponent/operator may make arrangements for a guaranteed single payment. This measure requires the development to pay for improvements associated with the Project, in concert with Kern County.
Policy 3. Require that all new development proposals have an adequate water supply available.	CONSISTENT. Impacts to public utilities are evaluated in Section 4.19, <i>Utilities and System Services</i> , in this Draft EIR. The proposed project would be served by Oildale Mutual Water Company (OMWC), who would be estimated to have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry, and multiple dry years. Furthermore, the Project would implement MM 4.19-3, which requires the operator to provide information on any groundwater that will be used. Implementation of MM 4.19-4 would also be required, which consists of installing water meters on all facilities.
Goal 1. Ensure the provision of adequate storm drainage facilities to protect planning area residents from flooding resulting from storm water excess.	CONSISTENT. Section 4.10, <i>Hydrology and Water Quality</i> , MM 4.10-2 would ensure that prior to any grading, a project-specific hydrologic study and final drainage plan shall be completed, to ensure best management practices that would prevent soil erosion. It requires that engineering recommendations be incorporated into the project design, based on stormwater modeling.
Policy 1. Effect the consolidated collection, treatment, and disposal of wastewater from all urban development within the metropolitan area, discouraging the creation	CONSISTENT. Impacts to public services are evaluated in Section 4.15, <i>Public Services</i> , in this Draft EIR. A will-serve letter is attached as Appendix F.3 that confirms the proposed project would be served by the North of River Sanitary District.

Goals and Policies	Project Consistency
or expansion of separate systems and encouraging the consolidation and interconnection of existing separate systems.	
Storm Drainage	
Goal 1. Ensure the provision of adequate storm drainage facilities to protect planning area residents from flooding resulting from storm water excess.	CONSISTENT. As described in Chapter 3, <i>Project Description</i> , the proposed project would install an on-site storm drainage system consisting of inlets, underground piping and surface and underground basins. Runoff would drain to retention basins located on the south side of each building within the boundaries of the Project Site. The basins would be designed to accommodate a 100-year storm event and would detain runoff and release it at a rate no greater than the pre-development condition of the Project site. The proposed Project would be required to retain the stormwater per Kern County's drainage requirements and all other applicable standards.
Goal 2. Maintain a comprehensive storm drainage system which serves all urban development within the planning area.	CONSISTENT. MM 4.10-1 requires that before a grading permit, a Stormwater Pollution Prevention Plan be incorporated into final design specifications and construction contracts. This plan must show the minimization of vegetation removal, and other best management practices for soil erosion prevention, such as implementing sediment controls.
Implementation Measure 4. Use drainage area retention basins for drainage disposal when direct discharge to a waterway is not available. Combine storm drainage usage with recreational usage when feasible. Incorporate in such basins recessed areas for off-season retention of nuisance flows. Maintain all basins with the primary purpose of drainage disposal, with recreational usage as a secondary objective.	CONSISTENT. Section 4.10, <i>Hydrology and Water Quality</i> , evaluates impacts on water quality and drainage. MM 4.10-1 requires that before a grading permit, a Stormwater Pollution Prevention Plan be incorporated into final design specifications and construction contracts. This plan must show the minimization of vegetation removal, and other best management practices for soil erosion prevention, such as implementing sediment controls.
Street Lighting	
Goal 1. Provide uniform and adequate public lighting for all developed and developing portions of the planning area.	CONSISTENT. As discussed in Section 4.1, <i>Aesthetics and Visual Resources</i> , the proposed Project would be compliant with the County's Dark Skies Ordinance and would be designed to provide the minimum illumination needed to achieve safety and security purposes. Compliance with these requirements is ensured by the inclusion of MM 4.1-4.
Goal 2. Develop uniform planning area street light location and design standards.	CONSISTENT. See Street Lighting, Goal 1, above.

Goals and Policies	Project Consistency
Policy 4. Require developers to install street lighting in all new developments in accord with adopted city standards and county policies.	CONSISTENT. See Street Lighting, Goal 1, above.
Solid Waste	
Goal 1. Ensure the provision of adequate solid waste disposal services to meet the demand for these services in the planning area.	CONSISTENT. Impacts to solid waste are evaluated in Section 4.19, <i>Utilities and System Services</i> , in this Draft EIR. The proposed Project would be subject to all federal, State, and local policies and regulations regarding waste management and would be adequately served by the Bena Landfill. Additionally, the Project would implement MM 4.19-5, which requires debris and waste generated shall be recycled to the extent feasible.
Policy 1. Comply with, and update as required, the adopted county solid waste management plan.	CONSISTENT. See Solid Waste, Goal 2, above.
Implementation 1. Implement the "Kern County Solid Waste Management Plan-1988", and subsequent updates which will make the Metropolitan Bakersfield Municipal landfill at Bena available to the General Plan area.	CONSISTENT. See Solid Waste, Goal 2, above.

Key:

ADA = Americans with Disabilities Act of 1990

ESA = Environmental Site Assessment

EV = electric vehicle

CBC = California Building Code

CEQA = California Environmental Quality Act

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibels

EIR = Environmental Impact Report

FEMA = Federal Emergency Management Agency

LI = Light Industrial

M-1 = Light Industrial

MBGP = Metropolitan Bakersfield General Plan

MM = Mitigation Measure

NOx = Oxides of nitrogen

OMWC = Oildale Mutual Water Company

PG&E = Pacific Gas and Electric

RECs = Recognized Environmental Conditions

ROG = Reactive Organic Gases

SJVUAPCD = San Joaquin Valley Unified Air Pollution Control District

Section 4.12

Mineral Resources

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Section 4.12

Mineral Resources

4.12.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting regarding mineral resources. It also evaluates the impacts on mineral resources that would result from the implementation of the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the California Department of Conservation California Geological Survey, California Geologic Energy Management Division (CalGEM) (Prior to January 1, 2020, CalGEM was known as the California Division of Oil, Gas, and Geothermal Resources), and Kern County publications and maps, as cited throughout this section.

4.12.2 Environmental Setting

This section discusses the existing conditions related to mineral resources within the region and Project area, including the proposed IPG Industrial Project (the Project) site.

Regional Setting

Mineral and petroleum resources are integral to Kern County's economy; Kern County produces more oil than any other county in California. Borax, cement, and construction aggregates constitute major economic mineral resources. The Surface Mining and Reclamation Act of 1975 (SMARA) requires the state geologist to classify land into Mineral Resource Zones (MRZs) according to its known or inferred mineral potential. The state geologist analyzed 2,971 square miles of land in Kern County to determine the location of mineral resource zones throughout the County. The MRZ categories are defined as follows. MRZ-2 is divided into MRZ2a and MRZ-2b based on degree of knowledge, MRZ-2a, and economic factors, MRZ-2b. (CGS 2009):

- **MRZ-1:** Areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources.
- **MRZ-2:** Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning based upon economic-geologic principles and adequate data demonstrate that the likelihood for occurrence of significant mineral deposits is high.

MRZ-2a: Areas underlain by mineral deposits where geologic data indicate that significant measured or indicated resources are present. Areas classified MRZ-2a contain discovered mineral deposits that are either measured or indicated reserves. Land included in MRZ-2a is of prime importance because it contains known economic mineral deposits.

- **MRZ-2b:** Areas underlain by mineral deposits where geologic information indicates that significant inferred resources are present. Areas classified MRZ-2b contain inferred mineral resources as determined by their lateral extension from proven deposits or their similarity to proven deposits. Further exploration could result in upgrading areas classified MRZ-2b to MRZ-2a.
- **MRZ-3:** Areas containing known or inferred mineral occurrences of undetermined mineral resource significance.
 - **MRZ-3a:** Areas containing known mineral occurrences of undetermined economic significance. Further exploration could result in reclassification of all or part of these areas into the MRZ-2a or MRZ-2b categories.
 - **MRZ-3b:** Areas containing inferred mineral occurrences of undetermined economic significance. Further exploration could result in the reclassification of all or part of these areas into the MRZ-2a or MRZ-2b categories.
- **MRZ-4:** Areas containing no known mineral occurrence.

Table 4.12-1 lists the classified mineral resources within Kern County that are part of the MRZ-2 group and, therefore, have a demonstrated mineral significance (as opposed to the MRZ-3 group, which has an undetermined mineral significance).

Table 4.12-1: Classified Mineral Resources within Kern County

Mineral Resource	MRZ Classification	Number of Areas	Total Acreage
Borates	MRZ-2a and 2b	2	2,564
Limestone	MRZ-2a	4	2,008
Limestone	MRZ-2b	2	157
Silica	MRZ-2a	1	119
Pozzolan (essential cement additive)	MRZ-2b	1	72
Gold	MRZ-2a	3	849
Gold	MRZ-2b	8	6,619
Dimension Stone	MRZ-2a	2	527

Source: CGS 1999.

Key:

MRZ = Mineral Resource Zones

Petroleum Resources

As mentioned above, Kern County produces more oil than any other county in California. The valley floor area of Kern County and the surrounding lower elevations of the mountain ranges contain numerous deposits of oil and gas resources, which are a major economic resource for the County. The proposed Project site is not located within a known oil production field, nor does the site have known active or abandoned wells (CalGEM 2024). The project site is not within the Metropolitan Bakersfield General Plan (MBGP) designation of R-MP (Resource–Mineral and Petroleum). The Project site is not located within the County’s Natural Resources (NR) or Petroleum Extraction (PE) Zone Districts (Kern County GIS 2024).

Sand and Gravel

Construction aggregates are a major economic mineral resource for Kern County. Sand and gravel are important resources for construction, development, and physical maintenance, used in projects from highways and bridges to swimming pools and playgrounds. The availability of sand and gravel affects construction costs, tax rates, and affordability of housing and commodities. The State of California has statutorily required the protection of sand and gravel operations. Because transportation costs are a significant portion of the overall cost of sand and gravel, the long-term availability of local sources of this collective resource is an important factor in maintaining the economic attractiveness of a community to residents, business, and industry. The major resources of sand and gravel in Kern County are in stream deposits along the eastern side of the San Joaquin Valley and in the Sierra Nevada foothills, approximately 44 miles northeast of the Project site, and in alluvial fan deposits along the Tehachapi Mountains at the southern end of Kern County, approximately 43 miles southeast of the Project site.

Borax

As discussed in the Conservation/Mineral Resources of the Metropolitan Bakersfield General Plan, borax constitutes a major economic mineral resource for Kern County. Borax, a borate mineral (a compound that contains Boron and oxygen), was discovered and put into production in 1872 in Nevada and in 1881 in Death Valley (U.S. Borax 2022). The discovery of borates in southeastern Kern County in the Kramer District was accidental when a water well penetrated lakebeds containing colemanite (calcium borate) in 1913 (Noble 1926). In 1927, underground mining of the minerals kernite and borax began and continued until 1957, when underground operations ceased and open-pit mining began, eventually becoming the largest open-pit mine in California (U.S. Borax 2022). Annually over 22 million tons of unrefined borax are removed from this mine, which supplies about 30% of the world’s supply of borates (U.S. Borax 2016). Other sources of borate in the County include Buckhorn Springs Deposit, China Lake, Cottonball, Cuddy Canyon prospect, El Paso Wells, and Indian Springs prospect.

Limestone

Carbonate rocks were initially quarried in 1888 as a source of lime. By 1909, the limestone resources were used for the manufacture of Portland cement during the construction of the first Los Angeles aqueduct. Limestone has been continuously mined, just northeast of Tehachapi, since

1921. The Tehachapi Plant was joined by California Portland (Cal Portland) Cement Company's Mojave Plant in 1954. The County's limestone resources are in roof pendants of metamorphosed marine sedimentary rocks scattered in intrusive rocks ranging in composition from granite to gabbro. Most of the pendants are located in the eastern portion of the County, which is underlain primarily by granitic rock of the Sierra Nevada batholith. Removal of limestone in the County is exclusively by open pit methods.

Precious Minerals

Gold is the most important metallic mineral commodity, in terms of total dollar value and number of deposits, that has been mined in Kern County. The first lode mining was in 1852 near Lake Isabella, then in 1894 gold was discovered south of Mojave at Randsburg in 1895. These two districts have yielded almost half of the total County production of gold.

The principal sources of silver in Kern County have been deposits in eastern Kern County as a by-product of gold ore. Although gold is the chief mineral in value, silver is predominant by a 5:1 ratio and is an important by-product of the gold ore. According to the Metropolitan Bakersfield General Plan, there is some potential for fossil and gemstone sites in the foothills of the Sierra Nevada. These resources do not represent a major economic resource; however, they could offer scientific and natural history value.

Other Mineral Resources

According to the Kern County General Plan EIR, other mineral resources within the County include uranium, gypsum, antimony, copper, and tungsten. Uranium deposits in the County are in (a) fine-grained marine sedimentary rocks, of Miocene age in the Temblor Range, (b) Mesozoic granitic rocks in the Sierra Nevada, and (c) Tertiary volcanic rocks and non-marine sedimentary rocks near the unincorporated community of Rosamond.

Several hundred thousand tons of gypsum are used annually in the County as a soil conditioner in alkaline soils. Gypsum mined in the County is found in the form of gypsite and gypsum. Gypsite deposits are primarily located in the San Joaquin Valley near Lost Hills and Kern Lake Bed and in the Temblor Range foothills near the unincorporated community of McKittrick.

Antimony deposits are found in several locations within the County, with the major source at Antimony Peak. Significant quantities of copper exist in the unincorporated community of Woody. Copper mines also exist in the El Paso Mountains and the Rademacher Hills area. Tungsten is found in various locations in the eastern part of the County, with most of the mines located in the Sierra Nevada and Rand Mining District, near the border of Kern County and San Bernardino County line. Minerals of lesser importance found in the County include arsenic, asbestos, barite, bismuth, coal and peat, diatomaceous earth, fluorspar, several lesser valued minerals, graphite, iron, lead, lithium, magnesite, manganese, mercury, molybdenum, perite, pumice and pumicite, quartz and feldspar, salt, talc, thorium, tin, wollastonite, and zinc.

Local Setting

The Project vicinity is characterized by industrial and commercial uses (distribution, storage, and shipping centers), transportation, vacant land, and residential uses to the east of the Project site. The Meadows Field Airport is adjacent to the west of the Project site.

The Project site is identified as being within MRZ-3 by the Department of Conservation’s State Mining and Geology Board, which are areas containing known or inferred mineral occurrences of undetermined mineral resource significance. The project site is not within the MBGP designation of R-MP (Resource–Mineral and Petroleum). The closest land designated as Map Code 8.4 (Mineral and Petroleum – Minimum 5 Acre Parcel Size) is approximately 2 miles north of the Project site (Kern County GIS 2024). There are no known oil, gas, irrigation, or geothermal wells on the Project site (DOC 2024). According to a database search of active mines listed in the California Department of Conservation, Division of Mine Reclamation database, there are no active or newly permitted (and presumed to be active in the near future) aggregate materials mines in the Project area (DMR 2024). The nearest mapped mine is approximately 5 miles north of the Project site and is indicated to be an open pit with a primary product of stone. **Table 4.12-2** lists the mines within the vicinity of the Project site and the commodity being mined.

Table 4.12-2: Mines Within the Project Vicinity

Mine Title	Mine ID	Operation Type	Primary Commodity	Approximate Distance from Project Site
Kern Front Borrow Pit	91-15-0084	Open Pit	Stone	5 miles northeast
Edison Sand Co., Inc.	91-15-0044	Quarry	Sand and Gravel	16 miles southeast
Caliente Sand & Mineral	91-15-0043	Open Pit	Sand and Gravel	16 miles southeast
Kc Public Works Sand Pit	91-15-0001	Open Pit	Sand and Gravel	16 miles southeast

Source: DMR 2024.

4.12.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

Geologic Energy Management Division

CalGEM, part of the California Department of Conservation, is a state agency that is responsible for supervising the drilling, operation, maintenance, plugging, and abandonment of oil, gas, and geothermal wells. CalGEM’s regulatory program promotes the wise development of oil, natural gas, and geothermal resources in California through sound engineering practices, prevention of pollution, and implementation of public safety programs. To implement this regulatory program, CalGEM requires avoidance of building over or near oil and gas wells that have been plugged or abandoned or requires the remediation of wells to current CalGEM standards.

Surface Mining and Reclamation Act of 1975

SMARA, Public Resources Code, Sections 2710-2796 regulates surface mining operation to assure that adverse environmental impacts are minimized, and that mined lands are reclaimed to a usable condition. SMARA encourages the production, conservation, and protection of the state's mineral resources, recognizes that "the state's mineral resources are vital, finite, and important natural resources and the responsible protection and development of these mineral resources is vital to a sustainable California" (Public Resources Code, Section 2711). It also requires the state geologist to classify land into MRZs according to its known or inferred mineral potential. The primary goal of mineral land classification is to ensure that local agencies use the classification information when developing land-use plans and when making land-use decisions that could preclude mining. MRZs are defined in detail in the Regional Setting section, above.

Local

Metropolitan Bakersfield General Plan

The Project is located within the MBGP area; therefore, it would be subject to the applicable policies and measures of the MBGP. The Land Use Element and Conservation Element of the general plan include goals, policies, and implementation measures related to mineral resources that apply to the Project, as described below.

Chapter II. Land Use Element

Policies

Policy 1. Provide for the following types of land uses, as depicted on the Land Use Plan: (I-1) d) Resource: Mineral and Petroleum (R-MP - minimum land use designation size 5-acres): Areas which contain producing, or potentially productive, petroleum fields and mineral deposits. This designation may be used in combination with other designations.

Policy 31. Allow for a variety of industrial uses, including land-extensive mineral extraction and processing, heavy manufacturing, light manufacturing, warehousing and distribution, transportation-related, and research and development uses.

Chapter V. Conservation Element

Mineral Resources

Goals

Goal 1. Protect areas of significant resource potential for future use.

Goal 3. Avoid conflicts between the productive use of mineral and energy resource lands and urban growth.

Policies

Policy 7. Promote development of compatible uses adjacent to mineral extraction areas.

Policy 17. Lands classified as MRZ-2, as designated by the State of California, should be protected from encroachment of incompatible land uses.

Policy 25. Discourage incompatible land use adjacent to Map Code 8.4 Mineral and Petroleum areas.

4.12.4 Impacts and Mitigation Measures

Methodology

Potential impacts of the Project on mineral resources have been evaluated using a variety of sources, including a review of information from the California Department of Conservation, California Geological Survey, and Kern County publications and maps. Using these resources and professional judgment, impacts were analyzed according to California Environmental Quality Act (CEQA) significance criteria described in this subsection.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on mineral resources.

A project could have a significant adverse effect on mineral resources if it would:

- Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state or
- Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

Project Impacts

Impact 4.12-1: The Project would result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State.

The Project site is identified as being within MRZ-3 by the Department of Conservation's State Mining and Geology Board, which are areas containing known or inferred mineral occurrences of undetermined mineral resource significance. The project site is not within the MBGP designation of R-MP (Resource–Mineral and Petroleum). Additionally, any proposed mineral resource extraction would require a Conditional Use Permit to be secured from Kern County. The closest land designated as Map Code 8.4 (Mineral and Petroleum – Minimum 5 Acre Parcel Size) is

approximately 2 miles north of the Project site (Kern County GIS 2024). Additionally, no active mines or petroleum extraction facilities are located within, or immediately adjacent to, the Project site (DMR 2024).

As identified in **Table 4.12-2**, the nearest formerly used mine to the Project site is the Kern Front Borrow Pit, an open pit stone mine approximately 5 miles north. Given this distance, the proposed Project would not interfere with nearby mine sites and would not result in the loss of land designated for mineral resources. Furthermore, based on the absence of historical surface mining in the immediate area, the potential for surface mining at the Project site is considered extremely low.

For these reasons the Project would not result in the loss of availability of a known mineral resource and the potential impact to mineral resources is less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

Impacts would be less than significant.

Impact 4.12-2: The Project would result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan.

As stated above, the Project site does not contain any oil or gas wells, is not located on a locally MBGP designation of R-MP (Resource–Mineral and Petroleum) or designated NR (Natural Resources), or PE (Petroleum Extraction) Zone Districts by Kern County’s Zoning Ordinance. While there are nearby mineral resource recovery sites, the operation of such sites would not be impeded by the development of the proposed Project.

Therefore, the development of the proposed Project would not result in the loss of availability of a known locally important mineral resource recovery site. Impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

Impacts would be less than significant.

4.12.5 Cumulative Setting Impacts and Mitigation Measures

Cumulative Setting

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project site. The projects considered in the cumulative analysis for this Project are described in Chapter 3, Project Description, Table 3-4: Cumulative Projects.

The geographic scope of impacts associated with mineral resources generally encompasses the Project site and a 0.25-mile radius area around the Project site. This scope is appropriate because of the localized nature of mineral resource impacts. The proposed Project would not result in the loss of a locally important mineral resource recovery site. While the proposed Project could combine with other cumulative projects to create impacts related to the loss of important mineral resource recovery sites, projects within the cumulative geographic context would be required to comply with federal, State, and local laws and policies to address potential impacts related to mineral resources. For these reasons, cumulative impacts to mineral resources would be less than significant.

Furthermore, the project site is not within or located within 0.25-miles of an area with the MBGP designation of R-MP (Resource–Mineral and Petroleum). Additionally, the Project is not located within the Kern County’s NR (Natural Resources), or PE (Petroleum Extraction) Zone District.

Therefore, because the proposed Project would not result in any loss of availability of a known mineral resource or a locally important mineral resource recovery site, it would not result in a cumulatively considerable contribution to such impacts within the County.

Mitigation Measures

No mitigation measures.

Level of Significance After Mitigation

Cumulative impacts would be less than significant.

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Section 4.13

Noise

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Section 4.13

Noise

4.13.1 Introduction

This section of the Draft Environmental Impact Report describes the affected environment and regulatory setting regarding noise. It also evaluates existing noise conditions in the proposed IPG Industrial Project (Project) area and analyzes the impacts on ambient noise and ground-borne vibration levels that would result from the implementation of the Project, and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the July 2, 2024, Noise and Vibration Analysis prepared by Urban Crossroads 2024 (Appendix I) and the September 2024 Project-related traffic data provided by David Evans and Associates 2024 (Appendix J).

Terminology

Ambient Noise: the composite of noise from all sources near and far. In this context, the ambient noise level constitutes the normal or existing level of environmental noise at a given location.

Community Noise Equivalent Level (CNEL): The average equivalent sound level during a 24-hour day, obtained after addition of approximately 5 decibels to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and 10 decibels to sound levels in the night before 7:00 a.m. and after 10:00 p.m.

Decibel (dB): A unit for describing the amplitude of sound, equal to 20 times the logarithm to the base 10 of the ratio of the pressure of the sound measured to the reference pressure, which is 20 micropascals (20 micronewtons per square meter).

A-Weighted Sound Level (dBA): The sound pressure level in decibels as measured on a sound meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear.

Equivalent Noise Level (L_{eq}): The sound level containing the same total energy as a time varying signal over a given sample period, or the average A-weighted sound level during the measurement period. L_{eq} is typically computed over 1-hour, 8-hour, and 24-hour sample periods.

Day-Night Noise Level (L_{dn}): The average equivalent sound level during a 24-hour day, obtained after addition of 10 decibels to sound levels in the night after 10:00 p.m. and before 7:00 a.m.

Noise Exposure Contours: Lines drawn about a noise source indicating constant levels of noise exposure. CNEL and day-night noise level contours are frequently utilized to describe community exposure to noise.

Noise Level Reduction: The noise reduction between indoor and outdoor environments or between two rooms that is the numerical difference, in decibels, of the average sound pressure levels in those areas or rooms. A measurement of a noise level reduction combines the effect of the transmission loss performance of the structure plus the effect of acoustic absorption present in the receiving room.

Sound Exposure Level or Single Event Noise Exposure Level: Sound Exposure Level or Single Event Noise Exposure Level. The level of noise accumulated during a single noise event, such as an aircraft overflight, with reference to a duration of one second. More specifically, it is the time-integrated A-weighted squared sound pressure for a stated time interval or event, based on a reference pressure of 20 micropascals and a reference duration of one second.

Sound Level: The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the response of the human ear and gives good correlation with subjective reactions to noise.

Sound Power Level (Lw): Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

Sound Transmission Class: The single-number rating of sound transmission loss for a construction element (for example, window and door) over a frequency range where speech intelligibility largely occurs.

Sound Fundamentals

The pitch or loudness of sound determines whether a sound is of a pleasant or objectionable nature. Pitch, which is the height or depth of a tone or sound, is louder to humans when it is high-pitched versus low-pitched. The loudness of a sound is determined by a combination of the intensity of the sound waves with the reception characteristics of the ear. Sound is generally characterized by several variables, including frequency and amplitude. Frequency describes the sound's pitch (tone) and is measured in cycles per second (hertz), while amplitude describes the sound's pressure (loudness).

Measurement scales are used to describe sounds. A decibel (dB) is a unit used to describe the amplitude (loudness) of sound, and sound levels are calculated on a logarithmic, not linear, basis. The lowest sound level that an unimpaired human ear can hear is described as zero on the decibel scale. Due to the logarithmic nature of measuring sound levels on the decibel scale, a 10 dB increase represents a tenfold increase in acoustic energy, whereas a 20 dB increase represents a hundredfold increase in acoustic energy. Because a relationship exists between acoustic energy and intensity, each 10 dB increase in sound level can have an approximate doubling effect on loudness as perceived by the human ear.

The most common metric is the overall A-weighted decibel (dBA) measurement that has been adopted by regulatory bodies worldwide. Because A-weighting is designed to emulate the frequency response characteristics of the human ear and reflect the way people perceive sounds, it is widely used in local noise ordinances and State and federal guidelines, including those of the State of California and Kern County. **Table 4.13-1** provides the relative A-weighted noise levels of common sounds measured in the environment and industry for various qualitative sound levels.

Table 4.13-1: Human Reaction to Typical Vibration Levels

Vibration Level Peak Particle Velocity (inches per second)	Human Reaction	Effect on Buildings
0.006-0.019	Threshold of perception, the possibility of intrusion	Vibrations unlikely to cause damage of any type
0.08	Vibrations readily perceptible	Recommended upper level of vibration to which ruins and ancient monuments should be subjected
0.10	Level at which continuous vibration begins to annoy people	Virtually no risk of “architectural” (i.e., not structural) damage to normal buildings
0.20	Vibrations annoying to people in buildings	Threshold to which there is a risk of “architectural” damage to normal dwellings (houses with plastered walls and ceilings)
0.4-0.6	Vibrations are considered unpleasant by people subjected to continuous vibrations and unacceptable to some people walking on bridges	Vibrations at a greater level than normally expected from traffic, but would cause “architectural” damage and possibly minor structural damage

Source: Caltrans 2013a.

A-weighted sound levels can be measured or presented as equivalent sound pressure level (L_{eq}). This is defined as the average noise level, on an equal-energy basis for a stated period of time and is commonly used to measure steady-state sound or noise that is usually dominant. Statistical measurements are typically denoted by L_n , where “n” represents the percentile of time the sound level is exceeded. The measurement of L_{90} represents the noise level that is exceeded during 90% of the measurement period. Similarly, the L_{10} represents the noise level exceeded for 10% of the measurement period. The maximum noise level is the maximum instantaneous noise level during a specific period.

Of particular interest in this analysis are other descriptors of noise that are commonly used to help determine noise/land use compatibility and predict an average community reaction to adverse effects of environmental noise, including traffic generated, construction, and industrial noise. One of the most universal descriptors is the average day-night noise level (L_{dn}). As a result of a recommendation by the California Health Department and State planning law, this descriptor is used by many planning agencies, including Kern County’s Planning and Natural Resources Department. The L_{dn} noise metric represents a 24-hour period and applies a time-weighted factor designed to penalize noise events that occur during nighttime hours when relaxation and sleep disturbance are of more concern for average residents. While noise occurring during the daytime

hours—between 7:00 a.m. and 10:00 p.m.—is measured in decibels, noise occurring between 10:00 p.m. and 7:00 a.m., however, is effectively “penalized” by adding 10 dB to the measured level.

In California, the use of the community noise equivalent level (CNEL) descriptor is also permitted. CNEL is identical to the day-night average sound level metric, except that CNEL adds a 5 dB penalty for noise occurring during evening hours between 7:00 p.m. and 10:00 p.m. in addition to the 10 dB penalty added between 10:00 p.m. and 7:00 a.m.

The decibel system of measuring sound gives a rough connection between the physical intensity of sound and its perceived loudness to the human ear. Ambient sounds generally range from 30 dB (very quiet) to 100 dB (very loud). As shown in **Table 4.13-2**, changes of 1 to 3 dB are detectable under quiet, controlled conditions, and changes of less than 1 dB are usually not discernible (even under ideal conditions). A 3 dB change in noise levels is considered the minimum change that is detectable with human hearing in outside environments. A change of 5 dB is readily discernible to most people in an exterior environment, and a 10 dB change is perceived as a doubling (or halving) of the sound.

Table 4.13-2: Noise Perceptibility

Noise Level	Listener Perception
± 3 dB	Threshold of human perceptibility
± 5 dB	Clearly noticeable change in noise level
± 10 dB	Half or twice as loud
± 20	Much quieter or louder

Source: Kern County Planning and Natural Resources Department 2021.

Key:

dB = decibels

Noise and its Effects on People

An understanding of the physical characteristics of sound is useful for evaluating environmental noise. The methods and metrics used to quantify noise exposure, human response, and relative judgment of loudness are also discussed, and noise levels of common noise environments are presented.

Noise is a complex sound produced by various vibrations, often diffused and not harmonic. Noise is generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and interferes with or disrupts normal activities. The following factors affect how a noise source is perceived:

- **Sound level:** Louder noise tends to be more annoying. In addition, noise sources that change in sound level over time are more noticeable than those that do not vary over time.
- **Sound duration:** Noise that is fairly steady over time tends to be less noticeable, while short, impulsive noises are more noticeable.

- **Frequency spectrum:** Broadband noise is noise that contains sound energy at many frequencies – is not as noticeable than noise that contains discrete tones. For example, the tone from a backup beeper is more noticeable than noise from a fan, even if they are producing the same overall sound level.
- **Masking effects:** Noise from one source can be masked or made less noticeable by noise from one or more louder sources.

Although exposure to high noise levels has been demonstrated to cause physical (that is, to the body itself) and physiological (that is, to body functions) effects, the primary human responses to typical environmental noise exposure are subjective to the individual receiver and interference with activities.

The subjective responses of individuals to noise events are diverse and influenced by many factors, including the type of noise, the perceived importance of the noise, its appropriateness to the setting, the duration of the noise, the time of day, and the type of activity during which the noise occurs, and individual noise sensitivity. Interference effects of environmental noise refer to those effects that interrupt daily activities and include interference with communications and sleep. Interference in communications can include normal conversations, watching television, and telephone conversations. Sleep disturbance effects can include both awakening from sleep and arousal to a lesser state of sleep. Sleep disturbance can impair both acute and long-term health, ranging from cognitive performance, sleep patterns, and mood to more serious impacts such as hypertension, high blood pressure, and cardiovascular disease (King et al. 2012). The effects of noise on people can be grouped into four general categories:

- Subjective effects (dissatisfaction, annoyance).
- Interference effects (communication and sleep interference, learning).
- Physiological effects (startle response).
- Physical effects (hearing loss).

Vibration Fundamentals

Vibration is defined as the mechanical motion of the ground, buildings, or other types of structures, that is induced by the operation of mechanical devices or equipment. Vibration generally results in an “oscillatory” motion, in terms of the displacement, velocity, or acceleration of the ground (or structure), that causes a person to be aware of the vibration by means such as, but not limited to, sensation by touch or visual observation of moving objects. The effects of ground-borne vibration include movements of building floors, rattling of windows, and shaking of items on shelves or hangings on the walls. In extreme cases, vibration can cause damage to buildings. The noise radiated from the motion of the room surfaces is called ground-borne noise. **Table 4.13-3** presents typical levels of ground-borne vibration, vibration sources, and responses.

Table 4.13-3: Typical Levels of Ground-Borne Vibration

Response	Velocity Level	Typical Sources (at 50 feet)
Minor cosmetic damage to fragile buildings	100	Blasting from construction projects
Difficulty with tasks such as reading a video display terminal screen	90	Bulldozers and other heavy-tracked construction equipment
Residential annoyance, infrequent events	80	Rapid transit, upper range
Residential annoyance, frequent events	70	High-speed rail, typical
Approximate threshold for human perception	60	Bus or truck, typical
None	50	Typical background vibration

4.13.2 Environmental Setting

Existing Noise Environment

The Project site is currently vacant and has a land use designation of light industrial by the Metropolitan Bakersfield General Plan (MBGP), as well as a zone classification of Light Industrial–Precise Development Combining–Airport Approach Height Combining. Existing land uses within the Project vicinity also include light industrial, major and general commercial uses, and public transportation (airport) west of the Project site, and residential areas primarily northeast, east, and southeast of the Project site.

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over 24 hours. By collecting individual hourly noise level measurements, it is possible to describe the equivalent daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The 24-hour CNEL ranges between approximately 62 and 78 dBA. Weighted daytime noise levels ranged between approximately 56 dBA L_{eq} and 73 dBA L_{eq} , and nighttime noise levels ranged between 54 dBA L_{eq} and 70 dBA L_{eq} . **Table 4.13-4** provides a summary of the sound monitoring locations and results, identified by their tag number, as illustrated on **Figure 4.13-1**.

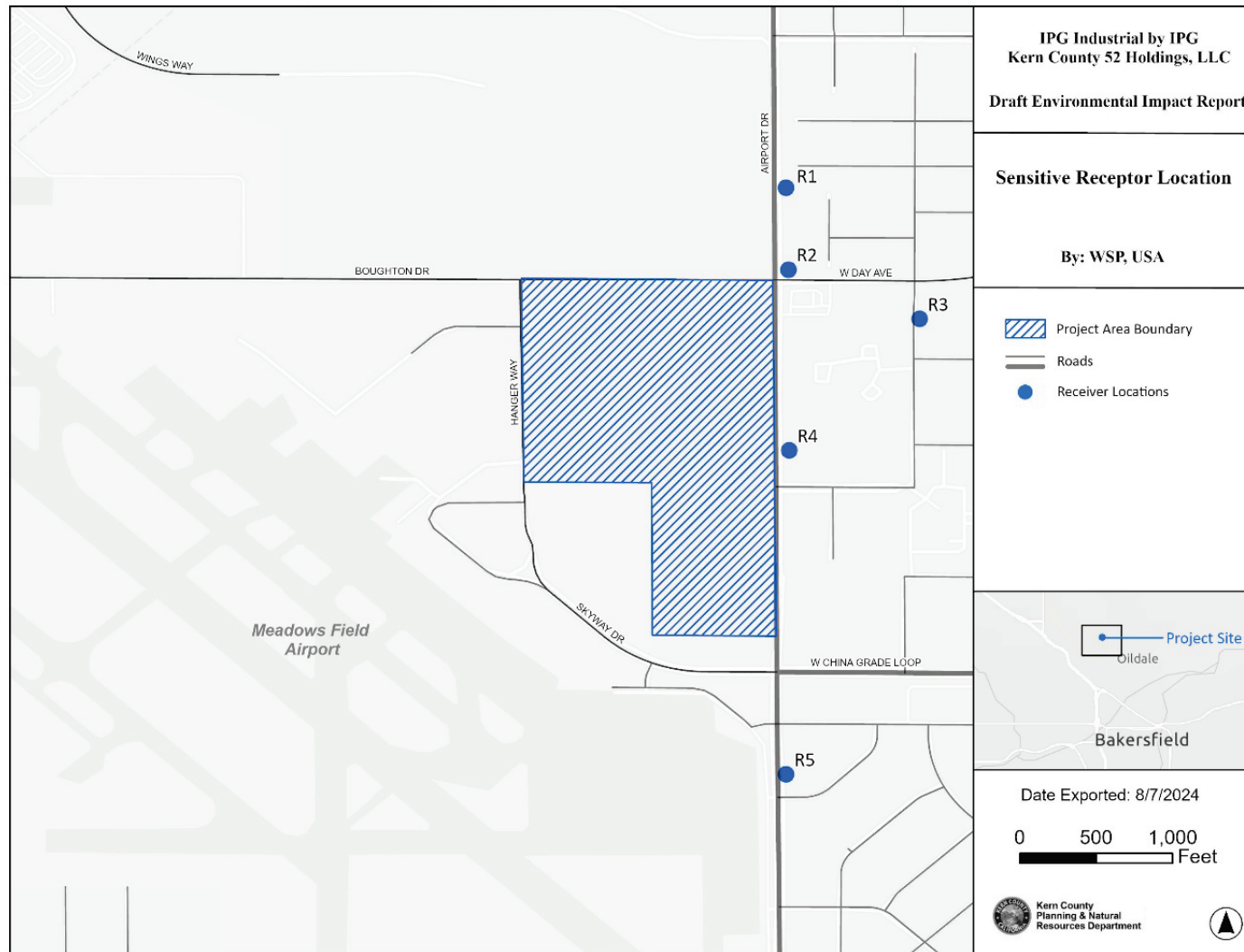
Figure 4.13-1: Sensitive Receptor Sound Monitoring Noise Locations

Table 4.13-4: Sound Monitoring Locations and Results

Receptor ^(a)	Description	Energy Average Noise Level (dBA L _{eq}) ^(b)		CNEL (dBA)
		Daytime	Nighttime	
R1	Located northeast of the site near the residence at 855 Greenwood Meadow Lane	73.2	70.4	77.6
R2	Located northeast of the site near the residence at 3117 Alhambra Meadow Court	70.9	65.2	73.4
R3	Located east of the site near the residence at 840 Park Meadows Avenue	56.2	54	61.6
R4	Located east of the site near the Park Meadows Apartments building at 840 Park Meadows Avenue	67.9	66.5	73.5
R5	Located southeast of the site near the residence at 2101 Wingland Drive	71.3	69.4	76.4

Source: Urban Crossroads 2024.

Notes:

(a) See Figure 4.13-1 for noise level measurement locations.

(b) "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Sensitive Receptors

The nearest sensitive receptors are the Park Meadows Apartment community located approximately 102 feet east of the Project site. All sensitive receptors in the Project area are residential uses, including both single-family and multifamily dwelling units. **Table 4.13-5** lists each sensitive receptor and proximity to the Project site with reference identification illustrated on **Figure 4.13-1**.

Table 4.13-5: Sensitive Noise and Vibration Receptors

Receptor ¹	Existing Land Use Designation	Proximity to Project Area
R1	Low Density Residential	667 feet northeast, on Greenwood Meadow Lane
R2	Low Density Residential	173 feet northeast, on Alhambra Meadow Court
R3	High Density Residential	809 feet east, on Meadow Grove Court
R4	General Commercial (current use is multifamily units)	102 feet east, on Park Meadows Avenue
R5	Low Density Residential	910 feet southeast, on Wingland Drive

Source: Urban Crossroads 2024

Notes: Refer to Figure 4.13-1: Sensitive Receptor Sound Monitoring Noise Locations

Off-Site Traffic Noise Analysis

Table 4.13-6 presents a summary of the exterior traffic noise levels on receiving land uses within the Project area. As shown in **Table 4.13-6**, the ambient noise environment of the Project vicinity is characterized by 24-hour CNEL levels that are attributed to existing traffic on local roadways. The calculated CNEL from actual existing traffic volumes on the analyzed roadway segments ranged from 56 dBA along Hanger Way (traveling south off Boughton Drive) and 75 dBA along Olive Drive (traveling west off State Route (SR) 99 northbound ramps).

The off-site transportation CNEL noise levels were assessed by the development of noise contours associated with traffic volume forecasts provided in the Traffic Study (Appendix J). The noise contours represent the distance to noise levels of a constant value and were measured from the center of the roadway.

Table 4.13-6: Existing Off-Site Noise Levels Without the Project

Road	Segment	Receiving Land Use ^(a)	CNEL (dBA) at Receiving Land Use
Hanger Way	South of Boughton Drive	Nonsensitive	56.2
Airport Drive	South of Merle Haggard Drive	Sensitive	68.2
Airport Drive	South of Boughton Drive	Sensitive	69.8
Airport Drive	North of Norris Road	Sensitive	72.3
Airport Drive	South of Norris Road	Sensitive	72.5
Airport Drive	South of Decatur Street	Sensitive	72.3
Airport Drive	South of Roberts Lane	Sensitive	73.6
Merle Haggard Drive	West of Airport Drive	Nonsensitive	72.9
Olive Drive	West of State Route 99 Northbound Ramps	Sensitive	74.5
Olive Drive	West of Airport Drive	Sensitive	70.7

Source: Urban Crossroads 2024.

Note: (a) The CNEL is calculated at the boundary of the right-of-way of the receiving adjacent land use.

Key: CNEL = community noise equivalent level; dBA = A-weighted decibels

4.13.3 Regulatory Setting

Federal

Federal Interagency Committee on Noise

The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of Project-generated noise and associated increases in ambient noise levels. The recommendations are based on studies that relate aircraft noise levels to the percent of persons highly annoyed by aircraft noise. While recommendations were made specifically to assess aircraft noise impacts, they are often used in environmental noise impact assessments involving the cumulative noise exposure on the community, such as CNEL and equivalent noise level.

Per FICON, in areas where the ambient noise level without the Project is below 60 dBA, an increase of 5 dBA is readily perceptible and considered significant. In areas where the ambient noise levels are within 60 to 65 dBA, a 3 dBA increase is barely perceptible, and when ambient noise levels already exceed 65 dBA, an increase in 1.5 dBA or greater is considered significant if the noise criteria for a given land use is exceeded, since it would likely contribute to the existing noise exceedance.

Federal Transit Administration

The Federal Transit Administration (FTA) provides technical guidance for conducting noise and vibration analyses for transit projects and incorporation into environmental review documents. The manual presents procedures for predicting and assessing transit noise and vibration impacts.

Noise Control Act of 1972

The Noise Control Act of 1972 (42 United States Code 4910) establishes a national policy to promote an environment for all Americans to be free from noise that jeopardizes their health and welfare. The Act establishes a means for the coordination of federal research and activities in noise control, authorizes the establishment of federal noise emissions standards for products distributed in commerce, and provides the noise-emission and noise-reduction characteristics of such products to the public.

U.S. Environmental Protection Agency, Environmental Noise Levels

The U.S. Environmental Protection Agency (EPA) provided guidance on environmental noise levels in Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety (EPA 1974), commonly referenced as the “Levels Document,” that establishes a day/night noise level (L_{dn}) of 55 dBA as the requisite level, with an adequate margin of safety, for areas of outdoor uses, including residences and recreation areas. The Levels Document does not constitute EPA regulations or standards but identifies safe levels of environmental noise exposure without consideration of costs for achieving these levels or other potentially relevant considerations. It is intended to “provide State and local departure for the purpose of decision-making.” The EPA is careful to stress that the recommendations contain a

factor of safety and do not consider technical or economic feasibility issues and therefore should not be construed as standards or regulations.

Federal Energy Regulatory Commission, Noise Guidelines

Federal Energy Regulatory Commission Noise Guidelines on Noise Emissions from Compressor Stations, Substations, and Transmission Lines (18 Code of Federal Regulations 157.206(d)(5)) require that the noise attributable to any new compressor stations, compression added to an existing station, or any modification, upgrade, or update of an existing station must not exceed a L_{dn} of 55 dBA at any pre-existing noise-sensitive area (such as schools, hospitals, or residences). This policy was adopted based on the EPA-identified level of significance of 55 dBA L_{dn} .

U.S. Department of Housing and Urban Development, Environmental Standards

The U.S. Department of Housing and Urban Development (HUD) regulations (24 Code of Federal Regulations Part 51) set forth the following exterior noise standards for new home construction assisted or supported by the HUD:

- 65 L_{dn} or less – Acceptable
- Greater than 65 L_{dn} and less than 75 L_{dn} – Normally unacceptable, appropriate sound attenuation measures must be provided
- Greater than 75 L_{dn} – Unacceptable

HUD's regulations do not contain standards for interior noise levels. A goal of 45 dBA L_{dn} is set forth, and attenuation requirements are geared to achieve that goal.

Occupational Safety and Health Administration, Occupational Noise Exposure

Occupational Safety and Health Administration, Occupational Noise Exposure; Hearing Conservation Amendment (Federal Register 1983) stipulates that protection against the effects of noise exposure shall be provided for employees when sound levels exceed 90 dBA over an 8-hour exposure period. Protection shall consist of feasible administrative or engineering controls. If such controls fail to reduce sound levels to within acceptable levels, personal protective equipment shall be provided and used to reduce exposure of the employee. Additionally, a Hearing Conservation Program must be instituted by the employers whenever employee noise exposure equals or exceeds the action level of an 8-hour time-weighted average sound level of 85 dBA L_{eq} . The Program requirements consist of periodic area and personal noise monitoring, performance and evaluation of audiograms, provision of hearing protection, annual employee training, and record keeping.

State

California Code of Regulations

California Code of Regulations Title 24 establishes the California Building Code. The most recent building standard adopted by the legislature that will be used throughout the state is the 2022 version, which took effect on January 1, 2023. The State of California's noise insulation standards are codified in the California Building Code. These noise standards are for new construction in California for the purposes of interior compatibility with exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residences, schools, or hospitals, are near major transportation noises, and where such noise sources create an exterior noise level of 60 dBA CNEL, or higher. Acoustical studies that accompany building plans must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL. Proposed projects may use either the prescriptive method (§ 5.507.4.1) or the performance method (§ 5.507.4.2) to show compliance. Under the prescriptive method, a Project must demonstrate transmission loss ratings for the wall and roof-ceiling assemblies and exterior windows when located within a noise environment of 65 dBA CNEL or higher. Under the performance method, a Project must demonstrate that interior noise levels do not exceed 50 dBA $L_{eq}(1hr)$.

The State of California's noise insulation standards for nonresidential uses are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 11, California Green Building Standards Code (CALGreen). CALGreen noise standards are applied to new or renovation construction projects in California to control interior noise levels resulting from exterior noise sources.

California Noise Control Act of 1973

Sections 46000 through 46080 of the California Health and Safety Code, known as the California Noise Control Act of 1973, declare that excessive noise is a serious hazard to the public health and welfare and that exposure to certain levels of noise can result in physiological, psychological and economic damage. It also identifies a continuous and increasing bombardment of noise in the urban, suburban, and rural areas. The California Noise Control Act declares that the State of California has a responsibility to protect the health and welfare of its citizens by the control, prevention, and abatement of noise. It is the policy of the State to provide an environment for all Californians free from noise that jeopardizes their health or welfare.

California Department of Transportation Construction Vibration Guidance Manual

One of the most recent references suggesting vibration guidelines is the California Department of Transportation (Caltrans) Transportation and Construction Vibration Guidance Manual (Caltrans 2013b). The manual provides guidance for determining annoyance potential criteria and damage potential threshold criteria. These criteria are provided in **Table 4.13-7** and **Table 4.13-8** and are presented in terms of peak particle velocity (PPV) in inches per second.

Table 4.13-7: Caltrans Guideline Vibration Annoyance Potential Criteria

Human Response	Maximum PPV (inches per second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.1
Severe	2.0	0.4

Source: Caltrans 2013b.

Key:

PPV = peak particle velocity

Table 4.13-8: Caltrans Guideline Vibration Damage Potential Threshold Criteria

Structure and Condition	Maximum PPV (inches per second)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile, historic buildings, ancient monuments	0.13	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Caltrans 2013b.

Key: PPV = peak particle velocity

Local

Metropolitan Bakersfield General Plan

The MBGP (Chapter VII; Noise Element) establishes noise level criteria in terms of the CNEL metric to establish desired noise levels in Kern County. As noted above, the CNEL is the time-weighted energy average noise level for a 24-hour day, with a 5 dB penalty added during evening time (7:00 p.m. to 10:00 p.m.) and a 10 dB penalty added to noise levels occurring during the nighttime hours (10:00 p.m. to 7:00 a.m.).

To ensure that residents are protected from excessive noise levels, the Noise Element includes Policy 3 to “review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses.” The MBGP achieves this with Implementation Measure 4, which requires proposed commercial and industrial uses or operations to be designed or arranged so that they will not subject residential or other noise-sensitive land uses to exterior noise levels in excess of 65 dB CNEL and interior noise levels in excess of 45 dB CNEL. Furthermore, the MBGP contains standards related to an increase in ambient noise levels on sensitive receptors. Projects that will cause an increase to the following standards are required to adopt practical and feasible mitigation measures. The MBGP states that a significant increase in ambient noise would occur if:

- An increase in ambient noise level of 1dB or more over 65dB CNEL, where the existing ambient level is 65dB CNEL or less; or
- The ambient noise level is less than 60 dB CNEL and the Project increases noise levels by 5 dB or more;
- The ambient noise level is 60 to 65 dB CNEL and the Project increases noise levels by 3 dB or more; The ambient noise level is greater than 65 dB CNEL and the Project increases noise levels by 1.5 dB or more.

These standards would be met with the following goals, policies, and implementation measures.

Goals

Goal 1: Ensure that residents of the Bakersfield Metropolitan Area are protected from excessive noise and existing moderate levels of noise are maintained.

Goal 2: Protect the citizens of the planning area from the harmful effects of exposure to excessive noise, and protect the economic base of the area by preventing the encroachment of incompatible land uses near known noise-producing roadways, industries, railroads, airports and other sources.

Policies

Policy 1: Identify noise-impact areas exposed to existing or projected noise levels exceeding 65 dB CNEL (exterior) or the performance standards described in **Table 4.13-9**. The noise exposure contour maps on file at the City of Bakersfield and County of Kern indicate areas where existing and Projected noise exposures exceed 65 dB CNEL (exterior) for the major noise sources identified.

Table 4.13-9: Noise Performance Standards (Metropolitan Bakersfield General Plan)

Category	Cumulative Number of minutes in any one-hour time period	Daytime 7 a.m. to 10 p.m.	Nighttime 10 p.m. to 7 a.m.
1	30	55	50
2	15	60	55
3	5	65	60
4	1	70	65
5	0	75	70

Note: Each of the noise level standards specified in the table above (Table VII-2 from the MBGP) shall be reduced by five (5) dB(A) for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. These noise level standards should be applied at a residential or other noise-sensitive land use and not on the property of a noise-generating land use.

Policy 3: Review discretionary industrial, commercial or other noise-generating land use Projects for compatibility with nearby noise-sensitive land uses. Additionally, the development of new noise-generating land uses which are not preempted from local noise regulation will be reviewed if resulting noise levels will exceed the performance standards contained within Table VII-2 in areas containing residential or other noise-sensitive land uses.

Policy 5: Encourage vegetation and landscaping along roadways and adjacent to other noise sources in order to increase absorption of noise.

Implementation Measures:

Measure 4: Require proposed commercial and industrial uses or operations to be designed or arranged so that they will not subject residential or other noise sensitive land uses to exterior noise levels in excess of 65 dB CNEL and interior noise levels in excess of 45 dB CNEL and so that impacts on noise sensitive uses shall not exceed the performance standards in Table VII-2 (of the General Plan).

At time of any discretionary approval, such as a request for zone change or subdivision, the developer may be required to submit an acoustical report indicating the means by which the developer proposes to comply with the noise standards. The acoustical report shall:

- Be the responsibility of the applicant.
- Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- Include estimated noise levels in terms of CNEL and the standards of Table VII-2 (if applicable) for existing and Projected future (10-20 years hence) conditions, with a comparison made to the adopted policies of the Noise Element.
- Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.

- f. Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a rationale for acceptance of the Project must be provided.

Measure 5: Develop implementation procedures to ensure that requirements imposed pursuant to the findings of an acoustical analysis are conducted as part of the Project permitting process.

Measure 10: The following standards shall be used to determine the existence of significant cumulative noise impacts expected to result from proposed construction or development Projects. The Projected occurrence of such significant cumulative impacts shall require the adoption of practical and feasible mitigation measures to be identified in an Environmental Impact Report or Negative Declaration, whichever is applicable.

Kern County Code of Ordinances

Section 8.36 (Noise Control) of the Kern County Code of Ordinances focuses on reducing loud and raucous noise. It limits construction to the hours of 6:00 a.m. to 9:00 p.m. on weekdays, and between 8:00 a.m. and 9:00 p.m. on weekends, when construction is within 1,000 feet of a residence. Meanwhile, Section 19.80.030 (Development and performance standards – Commercial and industrial districts) requires certain performance standards for commercial and industrial districts, in which the Project is subject to. This section requires that development shall not generate noise that exceeds an average 65 dB L_{dn} (24-hour median) between the hours of 7:00 a.m. and 10:00 p.m. and shall not generate noise that exceeds 65 dB, or which would result in an increase of 5 dB or more from ambient sound levels, whichever is greater, between the hours of 10:00 p.m. and 7:00 a.m.

Kern County Zoning Ordinance

Section 19.80.030.S(1) of the Kern County Zoning Ordinance (Kern County Planning and Natural Resources Department 2021) restricts noise generated by commercial or industrial uses within 500 feet of a residential use or residential zone district. The commercial or industrial use shall not generate noise that exceeds an average of 65 dB L_{dn} between the hours of 7:00 a.m. and 10:00 p.m. and shall not generate noise that exceeds 65 dB, or that would result in an increase of 5 dB or more from ambient sound levels, whichever is greater, between the hours of 10:00 p.m. and 7:00 a.m. Commercial or industrial facilities that are located in the M-3 zone district are exempt from these noise-generation restrictions.

Kern County Airport Land Use Compatibility Plan

The Meadows Field Airport runway is located approximately 1,500 feet southeast of the Project site. This places the Project site within the Airport Influence Area (AIA) according to the County of Kern Airport Land Use Compatibility Plan (ALUCP). The purpose of the ALUCP is to establish procedures and criteria by which the County of Kern and the affected incorporated cities can address compatibility issues when making planning decisions regarding airports and the land uses around them. In addition, the ALUCP requires that the supporting compatibility criteria consider the future CNEL contours. The Project site is located within the 60 to 65 dBA CNEL noise level

contour boundary of the Meadows Field Airport. Industrial land uses that involve service commercial, wholesale trade, warehousing, and light industrial are considered normally acceptable with an exterior noise level of 60 to 65 dBA CNEL, according to the ALUCP noise compatibility criteria.

4.13.4 Impacts and Mitigation Measures

Methodology

In accordance with the California Environmental Quality Act (CEQA) Guidelines, noise impacts associated with the Project were analyzed against the standards identified in the MBGP with consideration of the specific type of 24-hour operation created by warehouse construction and operational activities. Noise impacts assessed in this section are based primarily on the proposed Project's Noise and Vibration Analysis prepared by Urban Crossroads for Kern County (Appendix I).

An ambient noise survey was conducted in June 2023. At the time the noise analysis was prepared, the future tenants of the Project were unknown; therefore, this noise study includes a conservative analysis of the Project uses, noting that the Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements to accommodate specialized storage for varied goods and materials used in commerce including finished products, consumer goods, parts, materials, tires, and tools typically found in a modern distribution/logistics facility. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (for example, Building Code, Fire Code, and Plumbing Code) Outdoor storage is not proposed as part of this Project.

Continuous 24-hour noise level measurements were taken at five locations in the Project study area during typical weekday conditions. The sound meters were positioned to the nearest sensitive receptors, as illustrated in **Figure 4.13-1**. Monitoring locations were chosen based on guidance from Caltrans and the FTA. The monitoring locations were placed to characterize the noise environment and were therefore placed as clusters in the residential areas, rather than at each residence. The locations were free of noise contamination such as barking dogs, lawnmowers, pool pumps, and air conditioning.

Short-Term Construction Noise

To quantitatively describe short-term construction noise impacts, the noise analysis used reference construction equipment noise levels from the Federal Highway Administration's comprehensive list of noise-generating characteristics for specific types of construction equipment. For construction noise assessment, construction equipment can be considered to operate in two modes: stationary and mobile. As defined, stationary equipment operates in a single location for one or more days at a time, with either fixed-power operation (for example, pumps, generators, and compressors) or variable-power operation (for example, pile drivers, rock drills, and pavement breakers). However, consistent with industry practice, construction activities were evaluated as

mobile sources since these activities tend to vary considerably, not only as the speed and power of the equipment varies, but also as the equipment constantly changes in terms of its distance from the receivers and its relative location. Thus, to assess a more realistic and reasonable worst-case construction scenario while accounting for the dynamic nature of construction activities, the Project construction noise analysis models the equipment with the highest combined reference noise level as a moving point source within the construction area (Project site boundary).

Because each construction phase requires a specific mix of equipment, some phases have higher continuous noise levels than others, and some have higher impact noise levels than others. These various sequential phases would change the character of the noise generated on the site and, therefore, the noise levels surrounding the site as construction progresses. Typical operating cycles for these types of construction equipment may involve 1 or 2 minutes of full-power operation followed by 3 or 4 minutes at lower power settings. Impact equipment such as pile drivers are not expected to be used during the construction of this Project. **Table 4.13-10** outlines both the general assessment of common construction equipment combined for the loudest composite construction equipment, assuming they operate at the same time and are measured at 50 feet for reference, as well as the total amount of acoustical energy produced by the source of sound.

Table 4.13-10: Construction Reference Noise Levels

Construction Stage	Reference Construction Equipment ^(a)	Reference Noise Level at 50 feet (dBA L _{eq})	Composite Reference Noise Level (dBA L _{eq}) ^(b)	Reference Power Level (dBA L _w) ^(c)
Site Preparation	Tractor	80	84.0	115.6
	Backhoe	74		
	Grader	81		
Grading	Scraper	80	83.3	114.9
	Excavator	77		
	Dozer	78		
Building Construction	Crane	73	80.6	112.2
	Generator	78		
	Front End Loader	75		
Paving	Paver	74	77.8	109.5
	Dump Truck	72		
	Roller	73		
Architectural Coating	Man Lift	68	76.2	107.8
	Air Compressor	74		
	Generator (less than 25 kVA)	70		

Source: Urban Crossroads 2024.

Notes:

(a) Federal Highway Administration Road Construction Noise Model.

(b) Represents the combined noise level for all equipment assuming they operate at the same time.

(c) Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings.

Key: dB = decibels; kVA = kilovolt-ampere ;L_{eq} = Equivalent noise level; L_w = Sound Power Level

Construction Ground-borne Vibration

To analyze vibration impacts originating from the construction of the Project, vibration-generating activities were appropriately evaluated against standards established in the Caltrans Transportation and Construction Vibration Guidance Manual to assess potential temporary construction-related impacts at adjacent building locations. The nearest noise-sensitive buildings adjacent to the Project site can best be described as “older residential structures” with a maximum acceptable continuous vibration threshold of 0.3 PPV (inches per second [in/sec]).

Operational Stationary Source Noise

To fully describe the exterior operational noise levels from the Project, the Study utilized a noise prediction model using the Computer Aided Noise Abatement (CadnaA computer) program. Using the International Organization for Standardization (ISO) 9613-2 protocol, CadnaA calculated the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of the noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613-2 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources.

While sound pressure levels (for example, L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, L_w are connected to the sound source and are independent of distance. The operational noise level calculations provided in the noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (that is, a point source) generates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the CadnaA noise analysis to account for mixed ground representing a combination of hard and soft surfaces.

To analyze operational noise levels associated with the Project, the Study referenced over 38 individual noise sources to conservatively describe the potential worst-case noise environment scenario. These reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the Project. The references are shown in **Table 4.13-11**.

Table 4.13-11: Reference Noise Level Measurements

Noise Source(a)	Noise Source Height (feet)	Minutes per Hour ^(b)	Reference Noise Level (dBA L_{eq}) at 50 feet	Sound Power Level (dBA) ^(c)
		Day	Night	
Outdoor Loading Dock Activity	8	60	60	109.7
Roof-Top Air Conditioning Units	5	39	28	88.9
Trash Enclosure Activity	5	60	30	89.0
Parking Lot Vehicle Movements	5	60	60	87.8
Truck Movements	8	60	60	91.6

Source: Urban Crossroads 2024.

Notes:

(a) As measured by Urban Crossroads, Inc.

(b) Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

(c) Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels are calculated using the CadnaA noise model at the reference distance to the noise source.

Key: dBA = A-weighted decibel; L_{eq} = equivalent noise level

Outdoor Loading Dock Activity

To describe the outdoor loading dock activities, reference noise level measurements were collected at the Tejon Ranch Commerce Center located west of Interstate 5 in unincorporated Kern County. The 24-hour reference noise level measurements were collected adjacent to the Dollar General Distribution Center loading docks entry gate and represent the typical outdoor operational noise activities associated with the Project warehouse land uses. This includes heavy tractor-trailer truck deliveries, air brakes, backup alarms, trailer docking, and background operation activities. To ensure that the reference noise level accurately describes the peak hourly noise source activities, sixty of the highest 1-minute individual measurements observed over the 1,440-minute or 24-hour measurement period, were used to describe the outdoor loading dock activities. At a uniform distance of 50 feet from the source the outdoor loading dock activities representing multiple concurrent noise sources produced a combined noise level of 64.4 dBA L_{eq} .

Parking Lot Vehicle Movements

To describe the on-site parking lot vehicle movement activity, a long-term 24-hour reference noise level measurement was collected in the center of activity within the employee parking lot of the Dollar General Distribution Center. To ensure that the reference noise level accurately describes the peak hourly noise source activities, sixty of the highest 1-minute individual measurements observed over the 1,440-minute or 24-hour measurement period, were used to describe the parking

lot vehicle movements. At 50 feet from the center of activity, the parking lot produced a reference noise level of 55.7 dBA L_{eq} . Parking activities are expected to take place during the full hour (60 minutes) throughout the daytime and evening hours. The parking lot noise levels are mainly due to cars pulling in and out of parking spaces in combination with car doors opening and closing.

Truck Movements

The truck movements reference noise level measurement was collected on Tejon Industrial Drive at the intersection of Industrial Parkway Drive. The truck movements at this location include the heavy tractor-trailer truck movements associated with Dollar General, Vision Media, and IKEA distribution centers. Using the 60 highest 1-minute measurements collected over 24 hours, the heavy trucks entering and exiting the outdoor loading dock area produced a reference noise level of 59.9 dBA L_{eq} at 50 feet.

Roof-Top Air Conditioning Units

To assess the noise levels created by the roof-top air conditioning units, reference noise level measurements were collected from a Lennox SCA120 series 10-ton model packaged air conditioning unit. At 5 feet from the roof-top air conditioning unit, the exterior noise levels were measured at 77.2 dBA L_{eq} . At the uniform reference distance of 50 feet, the reference noise level is 57.2 dBA L_{eq} . Based on the typical operating conditions observed over a four-day measurement period, the roof-top air conditioning units are estimated to operate for an average of 39 minutes per hour during the daytime hours, and 28 minutes per hour during the nighttime hours. These operating conditions reflect peak summer cooling requirements with measured temperatures approaching 96 degrees Fahrenheit (°F) with average daytime temperatures of 82°F. For this noise analysis, the air conditioning units are expected to be located on the roof of the Project buildings. This reference noise level describes the expected roof-top air conditioning units located 5 feet above the roof for the planned air conditioning units at the Project site.

Trash Enclosure Activity

To describe the noise levels associated with trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when the trash is dropped into an empty metal dumpster, as would occur at the Project site. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's buildings.

Operational Off-site Traffic Noise

Off-site traffic noise related to the Project was analyzed by considering the existing traffic noise levels plus anticipated traffic generated by the Project. This was accomplished in the noise report by the development of noise contours at land uses adjacent to roadways conveying Project traffic. To describe anticipated roadway noise level within the contours from vehicular traffic associated

with the Project, the Study utilized a computer program that replicates the Federal Highway Administration Traffic Noise Prediction Model to predict the future traffic noise environment. This model accounts for roadway classification, width, total average daily traffic, travel speed, and other adjustments that reflect the California Vehicle Noise (Calveno) Emission Levels. Inputs for traffic modeling include Project-specific truck trips split between daytime, evening, and nighttime predictions varied by vehicle type—autos, medium trucks, and heavy trucks—described in Appendix J. The modeling considers the operational year of 2025 and the cumulative year of 2046.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine whether a Project could have a significant noise-related adverse effect. The thresholds identified in Appendix G of the Guidelines indicate that a Project would normally be considered to have a significant impact if it would result in:

- Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Generation of excessive ground-borne vibration or ground-borne noise levels.
- A substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project.
- For a Project located within the Kern County Airport Land Use Compatibility Sphere of Influence, would the Project expose people residing or working in the Project area to excessive noise levels.

Significance Criteria

Significant increase in ambient noise levels must be given to the magnitude of the increase, the existing baseline ambient noise levels, and the location of noise-sensitive receivers to determine whether a noise increase represents a significant adverse environmental impact. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called ambient environment. Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development, summarized in **Table 4.13-12**.

Table 4.13-12: Significance Criteria

Analysis	Condition(s)	Significance Criteria	
		Daytime	Nighttime
Construction	Noise Level Threshold ^(a)	80 dBA L _{eq}	70 dBA L _{eq}
	Vibration Level Threshold ^(b)	0.3 PPV (in/sec)	
Operational	Exterior Noise Level Standards ^(c)	65 dBA CNEL	
	If ambient is < 60 dBA CNEL ^(d)	≥ 5 dBA CNEL Project increase	

Analysis	Condition(s)	Significance Criteria	
		Daytime	Nighttime
Off-Site Traffic	If ambient is 60 – 65 dBA CNEL ^(d)	≥ 3 dBA CNEL Project increase	
	If ambient is > 65 dBA CNEL ^(d)	≥ 1.5 dBA CNEL Project increase	
	If ambient is < 60 dBA CNEL ^(d)	≥ 5 dBA CNEL Project increase	
	If ambient is 60 – 65 dBA CNEL ^(d)	≥ 3 dBA CNEL Project increase	
	If ambient is > 65 dBA CNEL ^(d)	≥ 1.5 dBA CNEL Project increase	

Source: Urban Crossroads 2024.

Notes:

(a) Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.

(b) Caltrans Transportation and Construction Vibration Manual, April 2020 Table 19

"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

(c) Metropolitan Bakersfield General Plan Noise Element Implementation Measure 4

(d) FICON 1992.

Key: dBA = A-weighted decibel; CNEL = community noise equivalent level; in/sec = inches per second; L_{eq} = equivalent noise level

Project Impacts

Impact 4.13-1: The Project would Generate a Substantial Temporary or Permanent Increase in Ambient Noise Levels in the Vicinity of the Project in Excess of Standards Established in the Local General Plan or Noise Ordinance, or Applicable Standards of Other Agencies

Construction Noise Impacts

Daytime Construction

Temporary noise impacts associated with the Project would be associated with short-term construction activities, which would include the use of various types of equipment commonly associated with site preparation, grading, access corridors, and infrastructure construction. Short-term construction noise impacts would be considered to have a significant impact if construction would exceed applicable noise standards or result in substantial increases in ambient noise levels at the nearest noise-sensitive land uses during the more noise-sensitive evening and nighttime hours.

Per the requirements of Kern County Code of Ordinances, Noise Control, Chapter 8.36, noise-generating construction activities that are audible to a person with average hearing ability at a distance of 150 feet from the construction site, or within 1,000 feet of an occupied residential dwelling, are typically prohibited between the hours of 9:00 p.m. to 6:00 a.m. on weekdays and between 9:00 p.m. to 8:00 a.m. on weekends. The purpose is to limit loud construction noise that disturbs the peace and quiet of any neighborhood or causes discomfort or annoyance to any reasonable person of normal sensitiveness sleeping or residing in the area.

Construction activities typically involve the use of heavy machinery that can be a significant source of noise, and while often temporary, can result in significant impacts. As previously mentioned, the Kern County Code of Ordinance prohibits construction noise perceptible to normal human

perception at 150 feet from construction site during specific hours, however, does not establish a numeric maximum acceptable construction source noise level. For this reason, a numerical construction threshold based on the FTA Transit Noise and Vibration Impact Assessment Manual is used for the analysis of daytime construction impacts. The FTA reasonable threshold for noise-sensitive residential daytime exterior levels is 80 dBA Leq and the nighttime exterior construction noise level is 70 dBA Leq.

Each stage during construction has a specific equipment mix, depending on the work to be completed during that stage. As a result of the equipment mix, each stage has its own noise characteristics; some stages have higher continuous noise levels than others, and some have higher impact noise levels than others. In this case, the site preparation phase associated with the development of the Project generates the highest level of noise. The Project is predicted to generate construction noise levels between approximately 46.7 (architectural coating phase) to 65.1 dBA Leq (site preparation phase) measured at nearby receptor locations. The nearest sensitive receptor (R4) is predicted to receive construction noise levels at 65.1 dBA CNEL and is located approximately 102 feet east of the Project site boundary.

As shown in **Table 4.13-13**, the noise levels associated with daytime construction are estimated to range between 46.7 to 65.1 dBA Leq at existing noise receiver locations. The analysis shows that the unmitigated construction activities will not exceed the FTA 80 dBA L_{eq} noise threshold at all the nearest noise-sensitive receiver locations.

Table 4.13-13: Construction Equipment Noise Levels

Receptor Location ^(a)	Construction Noise Levels (dBA L_{eq}) ^(b)					Threshold (dBA CNEL)	Exceedance
	Site Preparation	Grading	Building Construction	Paving	Architectural Coating		
R1	57.1	56.4	53.7	51.0	49.3	80	No
R2	61.2	60.5	57.8	55.1	53.4	80	No
R3	57.2	56.5	53.8	51.1	49.4	80	No
R4	65.1	64.4	61.7	59.0	57.3	80	No
R5	54.5	53.8	51.1	48.4	46.7	80	No

Source: Urban Crossroads 2024.

Notes:

(a) Construction noise source and receiver locations

(b) Construction noise source and receiver locations are based on distance from the construction activity, which is measured from the Project site boundary to the nearest receptor locations.

Key: dBA = A-weighted decibel; CNEL = community noise equivalent level; L_{eq} = equivalent noise level

Nighttime Concrete Pour Noise Analysis

Nighttime concrete pouring is anticipated as part of the Project building construction activities. Nighttime concrete pouring activities are often used to support reduced concrete mixer truck transit times and lower air temperatures than during the daytime hours and are generally limited to the actual building pad area. Since the nighttime concrete pours will take place outside the daytime hours, the Project Applicant will be required to obtain authorization for nighttime work from Kern County.

The reference noise levels describe the expected concrete pour noise sources that may include concrete mixer truck movements and pouring activities, concrete paving equipment, rear-mounted concrete mixer truck backup alarms, engine idling, air brakes, generators, and workers communicating/whistling. To describe the nighttime concrete pour noise levels associated with the construction of the Project, this analysis relies on the reference sound pressure level of 67.7 dBA L_{eq} at 50 feet.

As shown in **Table 4.13-14**, the noise levels associated with the nighttime concrete pour activities are estimated to range from approximately 39 to 50 dBA L_{eq} at the existing noise-sensitive receiver locations. The analysis shows that the unmitigated nighttime concrete pour activities will not exceed the FTA 70 dBA L_{eq} nighttime residential noise level threshold at all the nearest noise-sensitive receiver locations.

Table 4.13-14: Nighttime Concrete Pour Noise Level Compliance

Receptor Location(a)	Concrete Pour Construction Noise Levels (dBA L_{eq})		
	Exterior Noise Levels(b)	Threshold(c)	Exceedance
R1	41.8	70	No
R2	45.9	70	No
R3	41.9	70	No
R4	49.8	70	No
R5	39.2	70	No

Source: Urban Crossroads 2024.

Notes:

(a) Construction noise source and receiver locations are shown on Exhibit 10-A.

(b) Nighttime Concrete Pour noise model inputs are included in Appendix 10.2.

(c) Construction noise level thresholds as shown in **Table 4.13-11**.

Key: dBA = A-weighted decibel; L_{eq} = equivalent noise level

Summary

While the MBGP and Kern County Ordinance do not provide quantitative short-term construction noise level thresholds, the Project would generate acceptable short-term noise levels per FTA construction noise level impacts threshold of 80 dBA. In addition, Project construction would be limited to the allowable Kern County construction hours noted above. Any work outside of allowable hours would require authorization from Kern County. As discussed in Section 4.13.1, noise is often associated with unwanted sounds that are perceptible to the human ear, and, in general, the more a new noise level exceeds the previously existing ambient noise level, the less acceptable the new noise. Because construction activities are associated with high sound pressure, such as sounds emitting from pile drivers, rock drills, and pavement breakers, the combined potential measured at the source could reach as high as 115.6 dBA during site preparation (Section 4.13.4). While the predicted construction noise levels measured at sensitive receptor locations would not exceed standards of 80 dBA and 70 dBA (daytime and nighttime, respectively), impacts would be considered potentially significant when considering MBGP noise standards. The MBGP prohibits construction noise be audible to a person with average hearing faculties at 150 feet from the construction site during certain hours. **Mitigation Measure 4.13-1** would require

adherence to the Kern County Noise Ordinance, best management practices for equipment staging, equipment noise-reduction features where feasible, and reduce idle time and speeds. **MM 4.13-2** would require the implementation of a noise coordinator to respond to noise complaints. Further **Mitigation Measures MM 4.13-3** and **4.13-4** would require residents to be provided with notice and any grading permits required for the site to have notes concerning noise-reduction methods. Therefore, mitigation is required to reduce excessive noise levels from construction activity to a less than significant impact.

Operational Noise Impacts

Industrial Land Use Compliance

For operational noise, the MBGP Noise Element requires that proposed commercial and industrial uses or operations be designed or arranged so that they will not subject residential or other noise-sensitive land uses to exterior noise levels in excess of 65 dB CNEL and interior noise levels in excess of 45 dB CNEL, and also not exceed the noise performance standards in Table VII-2 of the MBGP. The Project is an industrial use and is therefore subject to this measure. Therefore, an exterior noise level of 65 dBA is utilized in this analysis.

Once operational, the Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements in order to accommodate specialized storage for varied goods and materials used in commerce including but not limited to finished products, consumer goods, parts, materials, tires, tools, typically found in a modern distribution/logistics facility. Any modification to the interior of the building will be subject to plan check review and require the issuance of a building permit to ensure compliance with applicable codes (for example, Building Code, Fire Code, and Plumbing Code) Outdoor storage is not proposed as part of this Project. As such, noise impacts resulting from specific products and packaged goods that are stored entirely indoors are not expected to contribute to noise impacts, and therefore would not warrant specific mitigation measures in this regard.

However, Project site-related noise would be primarily associated with traffic movement within the site, parking, and loading and unloading of trucks. Other sources include roof-top air conditioning units and trash enclosure activity. The operation of these activities in combination, would result in the total dBA CNEL on sensitive receivers. **Table 4.13-15** the predicted operational source noise levels expected to be generated from the Project at sensitive receivers range between 59.0 dBA and 63.1 dBA CNEL. Based on the projected noise levels generated during operations, when compared to measure 4 of the MBGP, the noise levels measured at sensitive receptors would not exceed the exterior noise level thresholds of 65 dBA CNEL, as shown in **Table 4.13-15**.

Table 4.13-15: Projected Operational Noise Levels

Noise Source	Operational Noise Levels by Receiver Location (dBA CNEL)					Threshold (dBA CNEL)	Exceedance
	R1	R2	R3	R4	R5		
Outdoor Loading Dock Activity	58.9	62.3	54.9	62.6	51.0	65	No
Roof-Top Air Conditioning Units	35.0	37.6	34.6	41.3	30.6	65	No

Noise Source	Operational Noise Levels by Receiver Location (dBA CNEL)					Threshold (dBA CNEL)	Exceedance
	R1	R2	R3	R4	R5		
Trash Enclosure Activity	31.7	36.6	30.4	39.2	28.4	65	No
Parking Lot Vehicle Movements	36.8	43.3	37.9	48.6	33.6	65	No
Truck Movements	38.0	42.6	39.2	51.5	35.0	65	No
Total (all noise sources)	59.0	62.4	55.2	63.1	51.2	65	No

Source: Urban Crossroads 2024.

Key: dBA = A-weighted decibel; CNEL = community noise equivalent level; L_{eq} = equivalent noise level

Ambient Increase

Existing noise levels adjacent to the Project site in the vicinity of the nearest sensitive receptor are documented, in **Table 4.13-16**, to be 73.5 dBA CNEL. Therefore, according to the Noise Element, the applicable significance criteria for a substantial noise increase would be a 1.5 dB or greater increase in ambient noise levels as a result of Project operations as measured at the nearest noise-sensitive receptor land use. To project the increase in ambient Project-associated noise levels, the modeled operational noise level was combined with the existing ambient noise levels per receiver location. This evaluation concluded that the noise levels from Project operations and maintenance activities would not be audible over existing ambient noise levels at any of the sensitive receptor locations. The projected increase ranges from 0.1 to 0.9 dBA. The measured ambient noise levels for each receptor do not increase significantly, based on the increase criteria outlined in the MBGP ambient noise standards. Therefore, the Project would not generate a substantial permanent increase in ambient noise levels.

Table 4.13-16: Daytime Project Operational Noise Level Increase (CNEL)

	R1	R2	R3	R4	R5
Total Project Operational Noise Level^(a)	59.0	62.4	55.2	63.1	51.2
Reference Ambient Noise Levels^(b)	77.6	73.4	61.6	73.5	76.4
Combined Project and Ambient^(c)	77.7	73.7	62.5	73.9	76.4
Project Increase^(d)	0.1	0.3	0.9	0.4	0.0
Increase Criteria^(e)	1.5	1.5	5.0	1.5	1.5
Threshold exceedance	No	No	No	No	No

Source: Urban Crossroads 2024.

Notes:

(a) Total Project operational noise levels as shown in **Table 4.13-14**

(b) Observed ambient CNEL noise levels as shown in **Table 4.13-4**

(c) Represents the combined ambient conditions plus the Project activities

(d) The noise level increase expected with the addition of the Project

(e) Significance increase criteria as shown in **Table 4-1: Significance Criteria Summary** in Appendix I

Key: CNEL = community noise equivalent level

Off-Site Traffic Noise

Noise contours on 10 roadways that convey Project traffic show that existing noise levels without the Project range between 56.2 dBA and 74.5 dBA. Contours and modeling using the methods described above show that with the development of the Project, in the operational year of 2025, the range of traffic-related noise is between 56.2 dBA and 74.8 dBA. This results in a range of 0.0 to 0.7 dBA CNEL increase in traffic noise levels surrounding the Project site in the operational year 2025, as shown in **Table 4.13-17**.

Table 4.13-17: Existing With Project Traffic Noise Level Increases

Road	Segment	Receiving Land Use	CNEL at receiving Land Use ^(a)			Incremental Noise Level Increase Threshold	
			No Project	With Project	Project Addition	Limit	Exceeded
Hanger Way	s/o Boughton Drive	Nonsensitive	55.2	56.9	0.7	5.0	No
Airport Drive	s/o Merle Haggard Drive	Sensitive	68.2	68.3	0.1	1.5	No
Airport Drive	s/o Boughton Drive	Sensitive	69.8	69.8	0	1.5	No
Airport Drive	n/o Norris Road	Sensitive	72.3	72.4	0.1	1.5	No
Airport Drive	s/o Norris Road	Sensitive	72.5	72.5	0	1.5	No
Airport Drive	s/o Decatur Street	Sensitive	72.3	72.4	0.1	1.5	No
Airport Drive	s/o Roberts Lane	Sensitive	73.6	73.6	0	1.5	No
Merle Haggard Drive	w/o Airport Drive	Nonsensitive	72.9	72.9	0	1.5	No
Olive Drive	w/o State Route 99 Northbound Ramps	Sensitive	74.5	74.5	0	1.5	No
Olive Drive	w/o Airport Drive	Sensitive	70.7	70.7	0	1.5	No

Source: Urban Crossroads 2024.

Note:

(a) The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use

Key: CNEL = community noise equivalent level

Summary

The operational noise levels would not contribute to a significant increase in ambient noise levels based on standards outlined in the MBGP. Additionally, Project-related traffic noise would result in a negligible or non-perceptible increase in traffic noise exposure levels along roadways in the Project vicinity. The industrial uses associated with the warehouse would not expose sensitive receptors to exterior noise levels that exceed 65 dBA. As outlined in Section 4.1, *Aesthetics*, the Project would implement **Mitigation Measure MM 4.1-3**, which requires the installation of a vegetative barrier along the Airport Drive and Boughton Drive frontages, which would result in both a visual and noise buffer established between the Project and the nearest sensitive receptors. This distinct separation from the Project from nearby residences will ensure better harmonization

of industrial operations near the existing neighborhood. Furthermore, the CALGreen noise standards which are applied to new construction ensure that building materials would perform to a standard that could demonstrate that interior noise levels do not exceed 50 dBA. Therefore, impacts would be less than significant.

Mitigation Measures

Implement **Mitigation Measure MM 4.1-3** (see **Section 4.1, Aesthetics**, for full mitigation measure text), and:

MM 4.13-1 The following measures are required to reduce short-term noise levels associated with project construction:

- a. Construction activities at the project site shall comply with the hourly restrictions for noise-generating construction activities, as specified in the Kern County Noise Ordinance (Municipal Ordinance Code 8.36.020). Accordingly, construction activities shall be prohibited between the hours of 9:00 PM to 6:00 AM on weekdays, and between 9:00 PM to 8:00 AM on weekends. These hourly limitations shall not apply to activities where hourly limitations would result in increased safety risk to workers or the public or nighttime concrete pours that have been granted prior authorization from the County.
- b. Equipment staging and laydown areas shall be located at the furthest practical distance from nearby residential land uses. To the extent possible, staging and laydown areas should be located at least 500 feet of existing residential dwellings.
- c. Where feasible construction equipment shall be fitted with approved noise-reduction features such as mufflers, baffles and engine shrouds that are no less effective than those originally installed by the manufacturer.
- d. Haul trucks shall not be allowed to idle for periods greater than five minutes, except as needed to perform a specified function (e.g., concrete mixing).
- e. On-site vehicle speeds shall be limited to 15 miles per hour, or less (except in cases of emergency).
- f. Back-up beepers for all construction equipment and vehicles shall be broadband sound alarms or adjusted to the lowest noise levels possible, provided that the Occupational Safety and Health Administration and California Division of Occupational Safety and Health's safety requirements are not violated. On vehicles where back-up beepers are not available, alternative safety measures such as escorts and spotters shall be employed.

MM 4.13-2 Prior to the issuance of grading permits, a “Noise Disturbance Coordinator” shall be established. The project operator shall submit evidence of methods of implementation and shall continuously comply with the following during construction:

- a. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise.
- b. The disturbance coordinator shall determine the cause of the noise complaint (e.g., starting too early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved.

MM 4.13-3 Prior to commencement of any on-site construction activities (i.e., fence construction, mobilization of construction equipment, initial grading, etc.), the project proponent/operator shall provide written notice to the public through mailing a notice, which shall include:

- a. The mailing notice shall be to all residences within 1,000 feet of the project site, no sooner than 15 days prior to construction activities. The notices shall include: the construction schedule, telephone number and email address where complaints and questions can be registered with the Noise Disturbance Coordinator.
- b. A minimum of one sign, legible at a distance of 50 feet, shall be posted at the construction site or adjacent to the nearest public access to the main construction entrance throughout construction activities that shall provide the construction schedule (updated as needed) and a telephone number where noise complaints can be registered with the Noise Disturbance Coordinator.
- c. Documentation that the public notice has been sent and the sign has been posted shall be provided to the Kern County Planning and Natural Resources Department.

MM 4.13-4 The following notes shall be placed on all grading and building permits issued for the project site:

“Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.

During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.

All equipment shall be fitted with factory equipped mufflers and be in good working condition. Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices”.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.1-3** (see **Section 4.1, Aesthetics**, for full mitigation measure text), and **MM 4.13-1** through **MM 4.13-4**, impacts would be less than significant.

Impact 4.13-2: The Project would Expose Persons to, or Generate, Excessive Ground-borne Vibration or Ground-borne Noise Levels

To assess potential ground-borne vibration impacts associated with the Project, Caltrans' vibration criteria for potential structural damage risks and human annoyance were used in this analysis. Accordingly, ground-borne vibration levels would be considered significant if predicted short-term construction or long-term operational ground-borne vibration levels attributable to the Project would exceed the recommended criteria for structural damage or human annoyance (that is, 0.25 and 0.1 in/sec PPV, respectively) at the nearest off-site existing structure. These thresholds are considered to represent a conservative level at which construction-related activities would result in either structural damage or human annoyance.

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods employed. The operation of construction equipment causes ground vibrations that spread through the ground and diminish in strength with distance. Based on representative vibration levels presented for various construction equipment types, it is possible to estimate the potential for human response (annoyance) and building damage using the following vibration assessment methods defined by the FTA. Representative vibration associated with construction equipment are listed in **Table 4.13-18**.

Table 4.13-18: Typical Vibration Levels During Construction

Equipment	PPV (inches per second)
Bulldozer (Large)	0.003
Bulldozer (Small)	0.035
Loaded Trucks	0.076
Jackhammer	0.089
Vibratory Roller	0.210

Key:

PPV = peak particle velocity

Table 4.13-19 provides the projected ground-borne vibration on sensitive receptors ranging between 0.001 to 0.025 PPV (in/sec) using the FTA equation for vibration, Caltrans Transportation and Construction Vibration Guidance Manual, and construction reference vibration levels. Based on maximum acceptable continuous vibration threshold of 0.3 PPV in/sec, the typical Project construction vibration levels will fall below the building damage thresholds at all the noise-sensitive receiver locations.

Table 4.13-19: Project Construction Vibration Levels

	Distance to Construction Activity (feet)	Typical Construction Vibration Levels PPV (in/sec)					Thresholds PPV (in/sec)	Exceedance
		Jackhammer	Loaded Trucks	Large bulldozer	Vibratory Roller	Highest Vibration Level		
R1	667	0.0	0.001	0.001	0.002	0.002	0.3	No
R2	173	0.002	0.004	0.005	0.012	0.012	0.3	No
R3	809	0.0	0.000	0.0	0.001	0.001	0.3	No
R4	102	0.004	0.009	0.011	0.025	0.025	0.3	No
R5	910	0.0	0.0	0.0	0.001	0.001	0.3	No

Key: in/sec = inches per second, PPV = peak particle velocity

Once Project construction is complete, it is not expected that ongoing operational activities would result in any ground-borne vibration or noise impacts to sensitive uses. As noted previously, Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements in order to accommodate specialized storage for varied goods and materials used in commerce including finished products, consumer goods, parts, materials, tires, and tools typically found in a modern distribution/logistics facility. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (that is, Building Code, Fire Code, and Plumbing Code). Outdoor storage is not proposed as part of this Project. As such, noise impacts resulting from specific products and packaged goods that are stored entirely indoors are not expected to contribute to noise impacts. Mitigation measures related to any specific product to be stored on-site and entirely within the proposed warehouses are not warranted in this regard.

Therefore, the Project would not expose sensitive receptors to excessive ground-borne vibration or noise levels, and impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Impact 4.13-3: For a Project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the Project area to excessive noise levels?

The Project site is located within the AIA of Meadows Field Airport. The Project site is located within the noise contour boundary of 60-65 dBA CNEL. Based on ALUCP noise compatibility criteria, industrial uses (including service commercial, wholesale trade, warehousing, and light industrial) exposed to exterior noise levels of 60-65 dBA CNEL is considered normally acceptable.

The Project's primary function as a warehouse and distribution facility may require modifications to the interior design and would be subject to tenant improvements to accommodate specialized storage for varied goods and materials used in commerce including finished products, consumer goods, parts, materials, tires, and tools typically found in a modern distribution/logistics facility. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (that is, Building Code, Fire Code, and Plumbing Code). Outdoor storage is not proposed as part of this Project.

Typically, conventional construction methods eliminate most noise intrusions upon indoor activities. Additionally, based on the Study, typical building construction will provide a noise reduction of approximately 20 dBA with windows closed, reducing 65 dBA to 45 dBA for interior exposure. Based on the compatibility of the industrial use (warehouse) and the AIA contour boundary (60 to 65 dBA CNEL), the exposure to noise on those working on the Project is considered normally acceptable. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Less than significant.

4.13.3 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project site. Due to the localized nature of noise impacts, cumulative impacts would be largely limited to areas within the general vicinity (that is, within approximately 1,000 feet per Noise Control, Chapter 8.36 of Kern County Code of Ordinances of the Project site). This geographic scope of analysis is appropriate because noise receptors within this area are expected to be similar to those in the Project site because their proximity and similar environments would result in similar land use—and thus, site types.

Impact 4.13-4: Contribute to Cumulative Noise Impacts

Construction

The Project's construction activities, in combination with the construction of other reasonably foreseeable projects in the area, could result in increased short-term construction noise levels in the Project vicinity, depending upon the specific timing of the construction of those other projects and proximity to the Project site. Construction activities associated with other projects in proximity to

the Project site could occur at the same time as the Project. Any future projects would be required to comply with the Kern County Code of Ordinances (Noise Control, Chapter 8.36) which establishes hours of construction and limitations on construction-related noise impacts on adjacent sensitive receptors; noise producing construction activities that are audible to a person with average hearing ability at a distance of 150 feet from the construction site, if the construction site is within 1,000 feet of an occupied residential dwelling, are prohibited between the hours of 9:00 p.m. to 6:00 a.m. on weekdays, and 9:00 p.m. to 8:00 a.m. on weekends. Additionally, implementation of **Mitigation Measure MM 4.13-2** would require a Noise Disturbance Coordinator respond and determine the source of the noise during the construction phase. Residences within 1,000 feet of the Project site should be aware of the construction period, as **Mitigation Measure 4.13-3** would require public noticing to include all residences within 1,000 feet of the Project site.

It is expected that other reasonably foreseeable projects (**Figure 3-7**) in the Project vicinity would be required to go through a project-by-project environmental review to analyze noise impacts consistent with CEQA Guidelines, Appendix G. Where necessary, other projects would be required to meet County standards and mitigate any construction noise impacts. **Mitigation Measure MM 4.13-1** requires idle time for heavy trucks be limited, reduces on-site vehicle speeds, and requires construction equipment be fitted with approved noise-reduction features. This would encourage the reduction of noise if other reasonably foreseeable projects were to conduct construction activity at the same time. Furthermore, **Mitigation Measure MM 4.13-4** requires notes to be placed on all grading and building permits that encourage noise reducing practices such as shutting off idling equipment and directing construction equipment away from sensitive noise receivers.

Cumulative construction may also result in the exposure of people to or the generation of excessive ground-borne vibration. The same receptor as identified for construction noise would be the closest to be impacted by all projects with respect to construction-related vibration as well. Due to these distances, and the rapid attenuation of ground-borne vibration, the project and the nearest related project are not in proximity to this sensitive receptor such that any sensitive receptor would be exposed to substantial ground-borne vibration levels.

Given the proximity and number of other reasonably foreseeable projects in the Project area, as shown in **Figure 3-7**, and assuming a worst-case scenario that cumulative projects would generate noise at the same time, the cumulative construction noise would be significant. Despite the implementation of mitigation, cumulative impacts resulting from temporary noise increases and ground-borne vibration from construction would be significant and unavoidable.

Operation

As discussed previously, the overall Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage and logistics uses, with a secondary application of cold storage occupying up to 20% of the facility. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage and distribution for varied goods and materials used in commerce including finished products, consumer goods, parts,

materials, tires, and tools typically found in a modern distribution/logistics facility consistent with the Light Industrial – Precise Development Combining – Airport Approach Height Combining Zone District. Outdoor storage of bulk and wholesale materials is not proposed as part of this Project. Any modification to the interior of the building will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (that is, Building Code, Fire Code, and Plumbing Code). Outdoor storage is not proposed as part of this Project, and therefore cumulative-level impacts are not expected to increase.

However, the Project, in combination with projects in proximity, has the potential to contribute to cumulative noise impacts in the vicinity of the Project. Once operational, the Project would not increase noise to levels that are greater than 65 dBA CNEL at sensitive receptors. Additionally, the Project design includes the installation of a vegetative barrier along the Project frontage between the site and the nearest residences and sensitive receptors as required by the implementation of **Mitigation Measure MM 4.1-3** (see Section 4.1, *Aesthetics*, for full mitigation measure text), further mitigating any incremental contribution of noise emissions. Based on the Traffic Study, by the horizon year of 2046, noise conditions with the Project would range from 59.0 to 74.7 dBA CNEL, whereas without the Project, noise would range from 58.6 to 74.7 dBA CNEL by 2046. It is expected that other projects would adhere to Kern County standards, MBGP Implementation Measure No. 4, and noise analysis measured in CNEL. As a result of noise monitoring and analysis, projects that would have the potential to increase above the standard, would be required to mitigate to levels that are acceptable. Therefore, the operational cumulative noise impact is less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.1-3**, (see Section 4.1, *Aesthetics*, for full mitigation measure text) and **MM 4.13-1** through **MM 4.13-4** would be required.

Level of Significance After Mitigation

Despite implementation of **Mitigation Measure MM 4.1-3**, (see Section 4.1, *Aesthetics*, for full mitigation measure text), and **MM 4.13-1** through **MM 4.13-4**, cumulative impacts would be significant and unavoidable for construction noise while operational noise impacts would be less than significant.

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Section 4.14

Population and Housing

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Section 4.14

Population and Housing

4.14.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the environmental setting and regulatory settings regarding population, employment, and housing. It also evaluates the impacts on population and housing that would result from the implementation of the proposed IPG Industrial Project (Project) and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the July 2024 Economic and Fiscal Impact Analysis prepared by the Natelson Dale Group, Inc. (Fiscal Study, Appendix L); the Metropolitan Bakersfield General Plan (MGBP); demographic information from the California Department of Finance (DOF) Population and Housing Estimates for Cities, Counties, and the State; and the U.S. Census Bureau. The California DOF and Census Bureau are key sources for the April 2024 Regional Growth Forecast and Demographic Forecast for Kern Council of Governments (Kern COG), 2024–2050 Growth Forecast Update.

4.14.2 Environmental Setting

Existing and Projected Population

Kern County is the third largest county in California with a total area of 8,161 square miles. Within the last decade, the population size in Kern County has grown by roughly 8%, and forecasts project more growth, although the growth has slowed. According to the latest U.S. Census Data (decennial census), the population size in 2020 was estimated to be 909,235 persons, an increase from 839,631 persons (Census 2024). The Regional Growth Forecasts provided by Kern COG project the population size to further grow to 954,199 persons by 2035, which would be a less than 1% increase between 2024 and 2035 (Kern COG 2024). By 2050, the population is projected to increase to 1.2 million people, which would be an annual rate increase of 0.4%.

Existing and Projected Housing

In 2020, Kern County's total housing supply was 301,009 housing units. In 2024, it was 310,784 housing units, which is an approximately 3.1% (9,775 units) increase in housing supply. Of the total units available in 2024, 290,847 were occupied, which is a vacancy rate of approximately 6.4%. The vacancy rate establishes the relationship between housing supply and demand, which indicates whether the County has adequate housing supply. A vacancy rate of 6% is somewhat higher than the state average and reflects a growing housing market (Kern COG 2024).

According to the U.S. Census Bureau, between 2017 and 2021, 58.3% of the housing units in Kern County were owner occupied (Department of Finance 2024). Housing units and occupancy/vacancy rate trends for 2020 through 2024 are reflected in **Table 4.14-1**.

Table 4.14-1: Kern County Housing Unit Trends

Area	Unit Count			Occupancy/Vacancy Rate		
	2020	2024	Change	Occupied 2020	Occupied 2024	Change
Incorporated	188,710	197,385	8,675/ 1.05%	180,479	188,811	8,332/ 1.05%
Balance of the County	112,299	113,399	1,100/ 1.01%	101,019	102,036	1,017/ 1.01%
Total	301,009	310,784	9,775/ 2.06%	281,498	290,847	9,349/ 2.06%

Source: Department of Finance 2024b

Existing and projected housing in the region (including incorporated cities), as reported by the Kern County Regional Transportation Plan/Sustainable Communities Strategy, are presented in **Table 4.14-2**. The total household growth in Metropolitan Bakersfield is expected to increase by 0.8%, totaling 1,594 households by the year 2046. Growth in unincorporated areas is expected to grow by 0.3%, with a total of 364 households in unincorporated Kern County.

Table 4.14-2: Census and Projected Household Trends in Kern County Communities and Unincorporated Areas

Community	Census		Forecast		Forecast Growth 2020-2046	
Year	2010	2020	2035	2046	Rate	Increase
Kern County	254,610	281,498	318,180	350,720	0.8%	2,267
Metro Bakersfield	176,000	187,362	209,000	229,200	0.8%	1,594
Arvin	4,228	4,753	5,500	5,900	0.8%	44
California City	4,102	4,628	4,900	5,200	0.4%	22
Delano	10,260	11,113	12,300	13,010	0.6%	72
Maricopa	414	372	380	390	0.2%	1
McFarland	2,599	3,345	3,500	4,000	0.7%	25
Ridgecrest	10,781	11,186	12,100	13,240	0.6%	78
Shafter	4,230	5,204	7,300	9,470	2.3%	162
Taft	2,254	2,379	2,700	2,960	0.8%	22
Tehachapi	3,121	3,526	4,100	4,450	1.0%	39
Wasco	5,131	6,109	6,800	7,330	0.7%	47
Unincorporated	96,358	101,019	106,900	110,580	0.3%	364

Existing and Projected Employment

According to the California Employment Development Department, the County consistently ranks among the top five most productive agricultural counties in the United States and is the 13th largest petroleum-producing county in the nation. Additionally, because of its unique geographic location, the County has also become a distribution location for some of the world's largest companies, with freight cargo going to and from the Ports of Los Angeles and Long Beach.

Between 2010 and 2023, the County's civilian labor force grew by 5.8% (372,200 and 393,700, respectively). The employed labor force grew by 15.5% between 2010 and 2023 (312,600 and 361,000, respectively) (State of California EDD 2024a). The Kern Economic Development Corporation (KEDC) projects that the fastest growing occupations within Kern County between 2018 and 2028 to be within the Education, Healthcare and Social Assistance industry and the Trade, Transportation and Utilities industry (KEDC 2023). Based on the KEDC 2023 Market Overview, industry employment in the County is projected to reach 382,900 by 2028, an increase of 9.4% over the 10-year period.

It is projected that the total number of jobs will continue to grow by the year 2050 in Kern County, including incorporated, unincorporated, and Metropolitan Bakersfield Area (Kern COG 2024). By 2050, the unincorporated areas will have an estimated 129,818 jobs available, and Metropolitan Bakersfield Area will have 269,961 jobs available. This represents a 12% growth from 2024 for unincorporated Kern County, and a 46% growth in jobs for Metropolitan Bakersfield Area.

While the number of people employed in Kern County is increasing, the unemployment rate remains high. As of June 2024, the number of individuals participating in the Kern County civilian labor force was 393,900; of these, 358,800 were employed while 35,200 were unemployed, for an unemployment rate of 8.9%. Kern County's 8.9% unemployment rate is significantly higher than the State of California's unemployment rate (5.3%), as well as the rate of unemployment for the U.S. (4.3%) (State of California EDD 2024a). Out of 58 counties, Kern County ranks 54th for its unemployment rate (State of California EDD 2024b).

According to the Kern COG Regional Housing Data Report, there were 1.10 jobs per housing unit for incorporated areas of Kern County in 2010. That ratio increased to 1.18 in 2013 and was projected to decrease to 1.03 by 2023. Similarly, the ratio of jobs to housing units in unincorporated areas of Kern County was expected to decrease from 1.13 (2013) to 0.83 (2023) (Kern COG 2024).

4.14.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

California State law requires each city and county to adopt a general plan for future growth that contains at least seven mandatory elements, including a housing element, to qualify for allocation of State regional housing funding. To receive regional housing funds, the housing element, unlike other general plan elements, is required to be updated every five to eight years and is subject to detailed statutory requirements and mandatory review by the California Department of Housing and Community Development (HCD) (HCD 2022).

The HCD plays the critical role of reviewing every local government's housing element to determine whether it complies with State law and submitting written findings back to each local government. The HCD's approval is required before a local government can adopt its housing element as part of its overall General Plan. The option to use an eight-year schedule was created to better align with the schedule local governments (also known as "COGs" or metropolitan planning organizations) have to meet to update their Regional Transportation Plans. Regional Transportation Plans are updated every four years and are now mandated to align with housing plans in Regional Sustainable Communities Strategies.

California's housing element requirement acknowledges that, for the private market to adequately address the housing needs and demands of Californians, local governments must adopt plans and regulatory systems that provide opportunities for (and do not unduly constrain) housing development. As a result, housing policy in California rests largely on the effective implementation of local general plans and, particularly, local housing elements (HCD 2022).

Housing elements in general plans must identify housing needs for all economic segments. The plans must also provide opportunities for housing development to meet existing and projected housing needs, including a fair share of the regional housing needs. At the state level, the HCD estimates the relative share of California's projected population growth that could occur in each region of the State. These estimates are based on DOF population projections and historic growth trends. In areas where there is a regional Metropolitan Planning Organization or COG (as in Kern County), the HCD provides the regional housing need to the COG, which then assigns the fair share of the regional housing need to each of its cities and counties in the region. The process of assigning shares provides cities and counties the opportunity to comment on the proposed allocations. The HCD oversees the process to ensure that the COGs distribute their share of the State's projected housing need.

Before adopting an update to its housing element, the city or county must submit a draft to the HCD for review. The HCD advises the local jurisdiction as to whether its housing element complies with the provisions of California's Housing Element Law.

The COGs are required to assign regional housing shares to the cities and counties within their regions on a similar five-year schedule. At the beginning of each cycle, the HCD provides population projections to the COGs, which then allocate shares to their cities and counties. The shares of the regional need are allocated before the end of the cycle so that the cities and counties can amend their housing elements by the deadline.

Regional Housing Need Allocation Process

The Regional Housing Need Allocation (RHNA) is the State-mandated process for identifying the total number of housing units (by affordability level) that each jurisdiction must accommodate in its housing element of the general plan. As part of this process, the California Department of HCD identifies Statewide housing needs and assigns a jurisdiction a share, in a manner that is consistent with the development pattern included in the SCS of the 2014 RTP that was adopted in June 2014. This process was revised in 2008 with the approval of Senate Bill (SB) 375, which amended the RHNA schedule and methodology, requiring due dates for local governments updating their housing elements to be no later than 18 months from the date that Kern COG adopts the RTP, which occurred on June 19, 2014 (California Government Code Section 65584 et seq.). The RHNA for January 1, 2013, through December 31, 2023, was adopted June 19, 2014, as Appendix H of the 2014 RTP.

Senate Bill 375 Sustainable Communities Strategy

SB 375 (Chapter 728, Statutes of 2008) directs the California Air Resources Board to set regional targets for the reduction of greenhouse gas (GHG) emissions, in coordination with Assembly Bill (AB) 32, California's Global Warming Solutions Act of 2006. SB 375 is designed to enhance existing regional planning efforts by coordinating regional transportation planning with the RHNA to reduce GHG emissions from cars and light-duty trucks through the provision of incentivized land use strategies by willing local governments and development applicants. Under the SB 375 process, cities and counties maintain their existing authority over local planning and land use decisions.

Under SB 375, GHG reduction is addressed through the reduction of vehicle miles traveled by passenger vehicles and light-duty trucks through land-use strategies and improved transportation opportunities implemented by local governments. This is done by

- (a) connecting regional land use planning to regional transportation planning
- (b) coordinating regional housing needs
- (c) providing incentives for local governments to implement regional plans through funding opportunities
- (d) providing incentives to developers whose proposals are consistent with regional plans to receive streamlined California Environmental Quality Act (CEQA) processing.

SB 375 is implemented through the development of an SCS, which undertakes a planning program that sets forth a forecasted development pattern and GHG reduction policies and programs. These policies and programs are designed to reduce air emissions from passenger vehicles and light-duty trucks to help meet GHG reduction targets.

Local

2022 Regional Transportation Plan/Sustainable Communities Strategy

On July 21, 2022, the Kern COG adopted the 2022 RTP/SCS for the Kern region, including Chapter 4, the SCS, which implements Senate Bill (SB) 375, California's Sustainable Communities and Climate Protection Act. The SCS integrates transportation planning, greenhouse gas reductions from passenger vehicles and light-duty trucks, and regional housing needs with a forecasted development pattern that acknowledges the County's and incorporated cities' general plan programs.

Kern County General Plan

The Kern County General Plan (KCGP) is a policy document with planned land use maps and related information. It is designed to provide long-range guidance to County officials making decisions affecting development and the resources of unincorporated Kern County, excluding the Metropolitan Bakersfield planning area. The KCGP ensures that day-to-day decisions conform to long-range policies, which are designed to protect and further the public interest related to the County's growth and development.

Although the proposed IPG Industrial Project (the Project) site is located within the MBGP planning area, a discussion of the Kern County Housing Element of the KCGP is also included herein as it relates to the Project's potential impacts on population and housing.

Kern County General Plan Housing Element 2015–2023

The KCGP Housing Element covers the unincorporated portions of the County and the KCGP area. The housing element is one of the seven mandated elements of the local general plan. Housing element law, enacted in 1969, mandates that local governments adequately plan to meet the existing and projected housing needs of all economic segments of the community. The law acknowledges that, for the private market to adequately address housing needs and demand, local governments must adopt land use plans and regulatory systems that provide opportunities for, and do not unduly constrain, housing development.

As a result, housing policy in the State rests largely upon the effective implementation of local general plans, particularly local housing elements. Housing element law also requires the HCD to review local housing elements for compliance with State law and to report its written findings to the local government. The Kern County Housing Element was updated, as required by State law, and was adopted by the Kern County Board of Supervisors and approved by the State on April 26, 2016.

To receive regional housing funds, each jurisdiction must update its housing element every eight years. The housing element must incorporate policies and identify potential sites that would accommodate the County's fair share of the regional housing needs. The 6th Cycle Kern County Housing Element (2024-2031) is currently in review with the HCD for certification. Because the Project would not include new housing, the goals and policies of the Housing Element do not apply to the Project, but rather are used in this section of the Draft EIR to conceptualize growth projections.

Kern Council of Governments

Kern COG is an association of city and county governments created to address regional issues while protecting the integrity and autonomy of each jurisdiction. Its member agencies include Kern County and the 11 incorporated cities within Kern County.

The HCD provides each regional COG with its share of the Statewide housing need through the RHNA. As described above, future housing needs refer to the projected amount of housing a community is required to plan for during a specified planning period. The HCD provides this figure to regional COGs on a five-year schedule; COGs, in turn, are required by State law to determine the portion allocated to each jurisdiction within the region. This allocation process is known as the RHNA in the Kern COG region.

The RHNA determines housing needs with a special emphasis on ensuring adequate housing for persons in the very low-, low-, and moderate-income ranges. This assessment allows communities to anticipate growth so that they can grow in a way that enhances quality of life; improves access to jobs, transportation, and housing; and does not adversely affect the environment. Kern COG has determined that the total number of units needed in the County by 2031 is 57,650, as detailed in **Table 4.14-3**. For the unincorporated areas, 9,243 units, or 16.03% of the County total, are needed by 2031, as illustrated in **Table 4.14-4**.

**Table 4.14-3: Total Adopted Regional Housing
Needs Assessment by Income Category for Kern County**

Income Category for Kern County	Number of Housing Units	Percent of Total Regional Housing Need Allocation
Very Low Income	14,658	25.4%
Low Income	9,328	16.2%
Moderate Income	9,299	16.1%
Above Moderate Income	24,365	42.3%
TOTAL	57,650	100%

Source: Kern COG 2022.

Table 4.14-4: Adopted Regional Housing Needs Assessment by Income Category for Unincorporated Areas

Income Category for Kern County	Number of Housing Units	Percent of Total Regional Housing Need Allocation
Very Low Income	3,599	6.24%
Low Income		
Moderate Income	5,643	9.79%
Above Moderate Income		
TOTAL	9,242\	16.03%

Source: Kern COG 2022.

Metropolitan Bakersfield General Plan

The City of Bakersfield is the largest incorporated area in Kern County. Bakersfield is the county seat and the focus of much of the business activity in the County. Accordingly, Kern County and the City of Bakersfield have separately adopted a coordinated general plan for the metropolitan area (Metropolitan Bakersfield General Plan) that provides further information on planned land uses, policies, and implementation programs for the unincorporated portions of the metropolitan plan area. The 409 square miles of the plan area are also part of the City of Bakersfield's adopted Sphere of Influence. The policies, goals, and implementation measures in the MBGP for population and housing applicable to the Project are provided below.

The MBGP is a policy document with planned land use maps and related information. It is designed to provide long-range guidance to County officials making decisions affecting development and the resources of unincorporated areas within the Metropolitan Bakersfield sphere of influence. The MBGP helps to ensure that day-to-day decisions conform to long-range policies designed to protect and further the public interest related to the County's growth and development.

The Land Use Element of the MBGP achieves planned growth through two basic principles that govern the plan: the focusing of new development into distinctive centers which are separated by low land use densities and the siting of development to take advantage of the environmental setting. These principles are defined as the "centers" and "resource" concepts, respectively. Per the MBGP, the "centers" concept provides for a land use pattern consisting of several concentrated mixed-use commercial and high-density residential centers surrounded by medium density residential uses. Centers may be differentiated by functional activity, density/intensity, and physical character. Single-family residential uses are primarily located between these mixed-use commercial/residential centers.

Chapter II: Land Use Element

Goals

Goal 1: Accommodate new development which captures the economic demands generated by the marketplace and establishes Bakersfield's role as the capital of the southern San Joaquin valley.

Goal 2: Accommodate new development which provides a full mix of uses to support its population.

Goal 3: Accommodate new development which is compatible with and complements existing land uses.

Goal 4: Accommodate new development which channels land uses in a phased, orderly manner and is coordinated with the provision of infrastructure and public improvements.

Industrial Development

Policies

Policy 31: Allow for a variety of industrial uses, including land-extensive mineral extraction and processing, heavy manufacturing, light manufacturing, warehousing and distribution, transportation-related, research and development.

Policy 34: Provide for the clustering of new industrial development adjacent to existing industrial uses and along major transportation corridors.

Policy 35: Encourage upgrading of visual character of heavy manufacturing industrial areas through the use of landscaping or screening-of visually unattractive buildings and storage areas.

Policy 36: Require that industrial uses provide design features such as screen walls, landscaping and height, setback and lighting restrictions between the boundaries of adjacent residential land use designations so as to reduce impacts on residences due to light, noise, sound and vibration.

Policy 37: Street frontages along all new industrial development shall be landscaped.

Policy 38: Minimize impacts of industrial traffic on adjacent residential parcels through the use of site plan review and improvement standards.

4.14.4 Impacts and Mitigation Measures

This section describes the methodology used in conducting the CEQA impact analysis for population and housing; the thresholds of significance used in assessing impacts to population and housing; and the assessment of impacts on population and housing, including relevant mitigation measures, where applicable.

Methodology

The potential impacts on population growth and housing associated with the Project were evaluated on a qualitative basis. Population, housing, and employment in the Project area were evaluated by reviewing the most current data available from the U.S. Census Bureau, DOF, California Employment Development Department, KCGP, the Kern Economic Development Strategy, and the Kern COG. Using these resources and professional judgment, impacts were analyzed according to the CEQA significance criteria described below.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, state that a Project would have a significant impact on population and housing if it would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through the extension of roads or other infrastructure).
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Project Impacts

Impact 4.14-1: The project would induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).

The Project would require both a temporary construction workforce and a permanent operational workforce. The Project would generate direct jobs, where employees would report directly to the Project site for either construction of the Project, or to assist in the day-to-day operations of the warehouse facility. As described in Chapter 3, *Project Description*, the Project's primary function would be to facilitate the handling of goods and materials. This production would encourage job growth where the jobs would support the primary function of the Project, and would thereby create approximately indirect jobs, where employees would be associated with the goods and materials associated with the facility. Furthermore, the Project would encourage consumer spending of goods

and services (e.g., retail purchases, local services) from employees associated with the Project, which is referred to as induced jobs.

The Project would generate a temporary workforce during construction of the project, which would last approximately 24 months. The number of onsite construction workers would result in 503 direct jobs, which would largely depend on the specific phase of construction. It is anticipated that, during construction, the project would create a total of 46 indirect jobs and 122 induced jobs, for a total of 671 jobs during construction phase, according to the Fiscal Analysis Report (Appendix L). Construction workers are likely to commute to the Project site from various local communities and not relocate to the area. Additionally, **Mitigation Measure (MM) 4.15-2**, as included in Section 4.15, *Public Services*, would encourage a 50% local workforce for construction, reducing the number of workers commuting into the area for work. If temporary housing should be necessary, it is expected that accommodations would be available in the nearby hotels. Given that the increase in employment during construction phase of the Project is temporary, the short-term direct employment of construction workers on-site would not result in the building of new residences.

The Land Use Element of the MBGP (unincorporated planning area) embraces a “centers” concept, which are differentiated by functional activity, density/intensity, and physical character. The Project site is located within an identified center, and is surrounded by medium density residential, as well as low-density. These single-family residential uses are located throughout the planning area between the planned centers, which encourages people to live and work in the same area. Once constructed, the Project would create 437 direct jobs, 74 indirect jobs, and 85 induced jobs, for a total of 596 jobs that would need to be filled. The Project supports this intensified growth and is surrounded by residential development to support the operations of the Project, as identified by the MBGP.

While the Project would encourage substantial job growth in vicinity of the Project, this growth is encouraged and planned for, per the MBGP “centers” concept. The MBGP has designated zones within the planning area to facilitate growth within these identified centers, which are supported by surrounding medium- and low-density residential neighborhoods. This land use pattern has been considered in the adoption of the MBGP, in which the Project is consistent with the land use designation (Light Industrial) within this center. Therefore, impacts associated with population growth and housing resulting from operation of the Project are in conformance with the planned growth identified in the MBGP, and impacts are considered less than significant. Additionally, impacts would be further reduced with the implementation of **Mitigation Measure MM 4.15-2**, as included in Section 4.15, *Public Services*, which would encourage all contractors of the Project site to hire at least 50% of their workers from local Kern County communities.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.15-2** (see Section 4.15, *Public Services*) would be required.

Level of Significance After Mitigation

With the implementation of **Mitigation Measure MM 4.15-2**, impacts would be less than significant after mitigation.

Impact 4.14-2: The project would displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere.

The Project would not displace substantial numbers of existing people or housing because the Project site is undeveloped and located within an industrially designated area surrounded by similar industrial- and commercial-type development, with the exception of existing residential neighborhoods located entirely east of the site across Airport Drive. Further, the Project would not require the extension of roadways, utilities, or other infrastructure off-site that would result in the loss of existing housing or displacement of people. Therefore, the Project would not displace or require the removal of substantial numbers of existing people or housing, which would necessitate the construction of replacement housing elsewhere, and no impact would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No impact would occur.

4.14.5 Cumulative Setting Impacts and Mitigation Measures

Cumulative Setting

Cumulative impacts are two or more individual impacts that, when considered together, are considerable, that compound, or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project site. The geographic scope for cumulative impacts to population and housing consists of a 6-mile buffer around the Project site, as viewed in Chapter 3, *Project Description*, **Figure 3-15**.

These 29 projects may have the potential to induce population growth. However, it is likely they would be able to be staffed by the existing regional workforce within Kern County, as cumulative projects would be required to address potential environmental impacts as part of their individual project review. To this extent, and as noted in Section 4.14.2, the unemployment rate in Kern County remains higher than state and nation averages, at nearly 9% in 2024. Projections also indicate the population will continue to grow to 1.2 million people by 2050. Job availability from this Project and combined projects would potentially reduce the unemployment rate and support planned growth in population in Kern County and surrounding communities.

The Land Use Element of the MBGP (unincorporated planning area) anticipates the northeast Bakersfield area will experience significant growth, based on their “centers” concept, in which this Project and several other reasonably foreseeable projects are located. According to the Kern County Housing Element, projections indicate that the unincorporated population will increase by 15.5% and the housing supply would increase by 23% from 2013 to 2023 (Kern County 2015-2023 Housing Element 2015). Because the Project is in conformance with the MBGP land use designation, and thereby planned growth, the Project would not contribute to unplanned growth, either directly, indirectly, or induced. Similarly, cumulative projects would be required to address potential environmental impacts as part of their individual project review. Together, these projects would facilitate the planned and anticipated growth as projected.

Additionally, temporary impacts would be further reduced with the implementation of **Mitigation Measure MM 4.15-2**, as included in Section 4.15, *Public Services*, which would encourage all contractors of the Project site to hire at least 50% of their workers from local Kern County communities. This would ensure a workforce hired from within Kern County communities and reduces likelihood of workers commuting or relocating from outside Kern County for jobs and population growth.

Because the Project, combined with other projects, would support the anticipated growth in outlined in the MBGP, the Project would result in less than significant cumulatively considerable impacts to population and housing.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.15-2** (see Section 4.15, *Public Services* for full mitigation measure text) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.15-2**, cumulative impacts would be less than significant after mitigation.

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Section 4.15

Public Services

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Section 4.15

Public Services

4.15.1 Introduction

This section of the proposed Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding public services, which include the fire department and law enforcement, schools, parks, and other public facilities. It also evaluates potential impacts on public services that would result from implementation of the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by multiple online sources and published documents, as cited herein. For impacts to parks and other recreational facilities, please refer to Section 4.16, *Recreation*.

4.15.2 Environmental Setting

Kern County (County) is geographically California's third largest county, encompassing 8,161 square miles at the southern end of the Central Valley. The regional area for the proposed IPG Industrial Project (the Project) is bounded by Kings and Tulare Counties to the north, Santa Barbara and San Luis Obispo Counties to the west, the Tehachapi Mountains and the Sierra Nevada Mountains to the east, and the northern boundary of the Los Padres National Forest to the south.

Fire Protection

Fire protection in Kern County is a cooperative effort. The Kern County Fire Department (KCFD) provides firefighting services to many cities throughout the County. In addition, operating agreements with the U.S. Forest Service, U.S. Department of the Interior, Bureau of Land Management, U.S. Fish and Wildlife Service, and the California Department of Forestry and Fire Protection (CAL FIRE) also provide wildland fire protection within the County.

According to the KCFD's 2021 Strategic Fire Plan, the Project site is within Battalion 6, which is predominantly designated as a Local Responsibility Area (LRA) to the south and east sides of Bakersfield. There are some State Responsibility areas (SRAs) in the eastern portion of the battalion that adjoins the Sequoia National Forest; however, the Project site is not located within an SRA. According to the 2007 CAL FIRE, Kern County Fire Hazard Severity Zones Maps for the LRAs, the Project site is classified as LRA Unzoned. An Unzoned designation indicates that the area is urbanized and not susceptible to wildland conflagrations.

The Project site is within an LRA where Kern County is responsible for providing fire protection, so it would be served by the nearest KCFD fire station to the site. This station would be the primary responder to a fire or emergency at the proposed Project site; however, in the event of a major incident, other nearby stations would be called on to respond as necessary.

Fire Station No. 63 (Highland), located at 101 Universe Avenue, is approximately 1 mile southeast of the Project site and would be the primary responder to a fire or other emergency at the Project site. In the event of a major fire, or when the station is short-staffed, other stations would be called on to respond as necessary, including Fire Station No. 64 (Riverview), located at 101 E. Roberts Lane, and Fire Station No. 61 (Norris), located at 6400 Fruitvale Avenue. The average response time for the KCFD is 8.4 minutes (CPSM 2019). Information on the four closest fire stations to the Project site is included in **Table 4.15-1**.

Table 4.15.1: List of Nearby Fire Stations

Agency	Facility	Address	Approximate Distance from Project Site
KCFD	Station No. 63	101 Universe Ave., Bakersfield, CA 93308	1.0 mile southeast
KCFD	Station No. 64	101 E. Roberts Ln., Bakersfield, CA 93308	2.32 miles southeast
KCFD	Station No. 61	6400 Fruitvale Ave., Bakersfield, CA 93308	2.43 miles southwest

Key:

KCFD = Kern County Fire Department

The Kern County Fiscal Year 2023–2024 Recommended Budget of the Fire Department is approximately \$216,183,498, which is a 19.46% increase from the fiscal year 2022–2023 adopted appropriations (Kern County 2023). The 2023–2024 Recommended Budget continues to make funding of the Fire Department a top priority in Kern County.

Kern County has 14 mutual-aid agreements with neighboring fire suppression organizations to further strengthen emergency services (KCFD 2024). The KCFD has a mutual aid agreement with the Los Angeles County Fire Department (LACFD) in the event that KCFD is unable to be the primary responder to an emergency. The LACFD has 177 fire stations throughout Los Angeles County. The LACFD is divided into 22 battalions with over 4,947 personnel. The nearest LACFD fire station to the Project site is Station No. 77, located at 46833 Peace Valley Road, Gorman, approximately 50 miles south of the Project site (LACFD 2024).

Emergency Services

The Kern County Emergency Medical Services Division (EMS) is the lead agency for the emergency medical services system in Kern County. It is responsible for coordinating all system participants in the County, which include the public, fire departments, ambulance companies, other emergency service providers, hospitals, and Emergency Medical Technician (EMT) training programs throughout the County. The EMS includes a system of services organized to provide rapid response to serious medical emergencies, including immediate medical care and patient transport to a hospital setting. EMS covers day-to-day emergencies, disaster medical response planning and preparation, and preventative health care. The department also provides certification and re-certification for EMTs, paramedics, specialized nurses, and specialized dispatchers. (Kern County Public Health Services Department 2024). The nearest hospitals are the Dignity Health – Memorial Hospital, located at 420 34th Street approximately 3 miles southeast of the Project site,

and the Adventist Health Bakersfield, located at 2615 Chester Avenue approximately 3.3 miles south of the Project site.

Law Enforcement Protection

Kern County Sheriff's Department

The Kern County Sheriff's Office (KCSO) provides basic law enforcement services in the unincorporated areas of the County, which includes the Project area. The KCSO enforces local, State, and federal laws. It is also responsible for crime prevention, field patrol (ground and air), crime investigation, the apprehension of offenders, regulation of noncriminal activity, and related support services such as, patrolling off-highway vehicle recreation areas in the desert and mountainous areas of the County. Traffic and parking control functions are also provided, along with some investigations of property damage reports and traffic accidents. Complete investigations are conducted for accidents such as those involving injury or fatalities, intoxication-related accidents, and hit and run accidents.

The Kern County Sheriff is the County's chief law enforcement officer. The KCSO has 1,202 sworn and civilian employees. There are 567 authorized deputy sheriff positions deployed in patrol, substation, detective, courts services, and special investigations units (KCSO 2024a). The Kern County Sheriff's headquarters is in Bakersfield and consists of 15 substations that provide patrol services to remote areas of Kern County, such as the desert and mountainous regions, as well as other areas that need law enforcement services. The Kern County Sheriff's Office is located at 1350 Norris Road, approximately 1.3 miles southwest of the Project site. The East Bakersfield Substation is located at 1726-1798 Flower Street, approximately 5.3 miles southeast of the Project site. Other substations near the Project site include the Mojave Substation, Tehachapi Substation, and Boron Substation. Information on the four closest substations to the Project site is included in **Table 4.15.2**.

Table 4.15.2: List of Nearby Sheriff Substations

Agency	Facility	Address	Approximate Distance from Project Site
KCSO	Lamont Substation	12022 Main St. Lamont, CA 93241	15 miles southeast
KCSO	Wasco Substation	748 F St. Wasco, CA. 93215	19 miles northwest
KCSO	North Area Substation	181 East First Buttonwillow, CA 93206	24 miles west
KCSO	Delano Substation	455 Lexington St Delano, CA 93215	24 miles north

Key:

KCSO = Kern County Sheriff's Office

The KCSO strives to respond to calls as quickly as possible. Life-threatening calls are given priority. Response time is defined as the time required to respond to a call for service, measured from the time a call is received until the time a patrol car arrives at the scene. Response times naturally vary depending on the severity of the call, available staff, and location of a patrol car. Average response time for the KCSO is 5 minutes or less for an emergency or immediate-response incident (e.g., a crime that is in progress and/or a life-or-death situation) and 8 to 10 minutes for routine calls (e.g., a crime that has already occurred and/or an incident that is not life-threatening).

Response time to an emergency at or near the Project site would vary depending on the level of demand at the substation at the time of the call. If demand is high, the response time would be longer than the average times given above. The response time for a nonemergency call could be 8 minutes or more, depending on staffing and the number of other calls for service. In some areas, response may not occur at all for nonemergency calls due to funding deficiencies.

The Kern County Fiscal Year 2023–2024 Recommended Budget (Kern County 2023) shows a \$10,839,934, or 17%, decrease in the County's General Fund from Fiscal Year 2022–2023. The 2023–2024 Recommended Budget continues to make funding of the Sheriff's Department, District Attorney's Office, the Public Defender's Office, the Probation Department, and the Fire Department a top priority.

California Highway Patrol

The California Highway Patrol (CHP) provides traffic regulation enforcement, oversees responses to emergency incidents on California's highways (or assists other public agencies responding to emergency incidents), and promotes the safe and efficient movement of people and goods on California highways to minimize injuries, property damage, and loss of life. CHP officers patrol state highways and implement the CHP's other law enforcement activities (e.g., drug interception, vehicle theft investigation and prevention, vehicle inspections, accident investigations, and public awareness campaigns), with the support of the non-uniformed personnel assigned to area and division offices.

The CHP has eight divisions that provide services throughout California. Kern County is in both the Central and Inland Division service areas. The Project site is in the Central Division service area. The nearest Central Division office to the Project site is at 9855 Compagnoni Street in Bakersfield, approximately 12.1 miles south of the Project site (CHP 2024).

Schools/Parks/Other Public Facilities

The Project site is located within the Beardsley School District, which consists of Beardsley Elementary School, San Lauren Elementary School, North Beardsley School, and Beardsley Junior High School. Other school districts located in the vicinity include Standard School District, Bakersfield City School District, and Norris School District (Kern County Superintendent of Schools 2021). The closest school to the Project site is Wingland Elementary School, located approximately 0.9 miles south of the Project site.

Parks

The Kern County Parks & Recreation Department manages an extensive system of large regional parks designed to serve the entire countywide population, and small neighborhood and community parks intended primarily to meet the recreational needs of nearby residents in unincorporated communities. Kern County Parks & Recreation manages eight regional parks, 40 neighborhood parks, and 25 public buildings, supervises three golf courses, and landscapes 76 county buildings (Kern County Parks & Recreation 2024). There are no parks or trails within Project site boundaries.

The Project site is also within the boundaries of the North of the River (NOR) Recreation and Park District. NOR Recreation and Park District's mission is to provide recreation programs and facilities for the benefit of the NOR community. The community is 215 square miles in size, with a population of approximately 153,000 residents, and encompasses five school districts. There are 24 park sites, totaling 269.8 developed acres, within the NOR Recreation and Park District service boundaries. The major sources of revenues for the NOR Recreation and Park District are property taxes, program fees, and grants.

Other Public Facilities

Other public facilities include library facilities, post office facilities, and courthouses. The Kern County Library has 24 branches and 2 mobile libraries, which serve 850,000 residents within the County, including incorporated municipalities (Kern County Library 2023). Additionally, there are currently 46 post offices that serve the County (Postal Locations 2024). Furthermore, there are currently 11 facilities that serve the Superior Court of California in Kern County (Superior Court of California 2024).

The Kern County Fiscal Year 2023–2024 preliminary recommended budget shows an increase in funding for libraries and parks (Kern County 2023).

4.15.3 Regulatory Setting

Federal

No federal regulations, plans, or public service standards applicable to the Project have been identified.

State

California Fire Code

The 2022 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes the minimum requirements—consistent with nationally recognized good practices—to safeguard public health, safety, and general welfare from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures and premises, and to provide safety and assistance to fire fighters and emergency responders during emergency operation. Chapter 6

(Building Services and Systems) of the Code focuses on building systems and services, as they relate to potential safety hazards, and when and how they should be installed. Building services and systems are addressed include emergency and standby power systems, electrical equipment, wiring and hazards, and stationary storage battery systems. Chapter 33 (Fire Safety During Construction and Demolition) of the Code outlines general fire safety precautions to maintain required levels of fire protection, limit fire spread, establish the appropriate operation of equipment, and promote prompt response to fire emergencies. Features regulated include fire protection systems, fire fighter access to the site and building, means of egress, and the storage and use of hazardous materials, temporary heating equipment and other ignition sources.

The California Department of Forestry and Fire Protection

In addition to wildland fires, CAL FIRE's planning efforts involve responding to other types of emergencies that may occur daily, including residential or commercial structure fires, automobile accidents, heart attacks, drowning victims, lost hikers, hazardous material spills on highways, train wrecks, floods, and earthquakes.

Under Title 24, Regulations Development, the Office of the State Fire Marshal is responsible for promulgating regulations that promote fire and life safety for inclusion into the State Building Codes, including the California Building Code, California Fire Code, California Electrical Code, California Mechanical Code, California Plumbing Code, and California Historical Building Code. These documents are also referred to as California Code of Regulations, Title 24. The process incorporates a great deal of public participation and is guided by the State Building Standards Law.

Local

Metropolitan Bakersfield General Plan

Bakersfield is the largest incorporated area in Kern County. Bakersfield is the County Seat and the focus of much of the business activity in the County. Accordingly, Kern County and the City of Bakersfield have jointly adopted a general plan for the metropolitan area (Metropolitan Bakersfield General Plan [MBGP]) that provides further information on planned land uses, policies, and implementation programs for the unincorporated portions of the metropolitan planning area. The Project is located within the MBGP area; therefore, it would be subject to applicable policies and measures of the MBGP. The Land Use, Safety, Public Services and Facilities and Parks Elements of the MBGP include goals, policies, and implementation measures related to public services that apply to the Project, as described below.

Chapter II. Land Use Element

Policies

Policy 50. Coordinate with the appropriate agencies so that adequate land and facilities are set aside for schools, parks, police/fire, libraries, cultural facilities, recreational facilities and other service uses to serve the community.

Policy 54. The developer shall be responsible for all on-site costs incurred as a result of the proposed Project, in addition to a proportional share of off-site costs incurred in service extension or improvements. The availability of public or private services or resources shall be evaluated during discretionary project consideration. Availability may affect project approval or result in a reduction in size, density, or intensity otherwise indicated in the general plan's map provisions.

Policy 6. The County will ensure adequate fire protection to all Kern County residents.

Policy 7. The County will ensure adequate police protection to all Kern County residents.

Chapter VIII. Safety Element

Public Safety

Goals

Goal 2. Ensure that adequate police and fire services and facilities are available to meet the needs of current and future metropolitan residents through the coordination of planning and development of metropolitan police and fire facilities and services.

Policies

Policy 1. Identify future site locations, projected facility expansions, projected site acquisition costs, construction costs and operational costs in a manner that would maximize the efficiency of new public safety services.

Policy 2. Require discretionary projects to assess impacts on police and fire services and facilities.

Chapter X. Public Services and Facilities Element

General Utility Services

Policies

Policy 5. Require all new development to pay its pro rata share of the cost of necessary expansion in municipal utilities, facilities and infrastructure for which it generates demand and upon which it is dependent.

Chapter XI. Parks Element

Goals

Goal 2. Supply neighborhood parks at a minimum of 2.5 acres per 1,000 persons throughout the plan area.

Goal 3. Provide four acres of park and recreation space for each 1,000 persons (based on the most recent census) for general regional recreation opportunity as a minimum standard. Parks and recreational space includes mini-parks, neighborhood parks, community parks and regional parks.

Goal 7. Require that the costs of park and recreation facilities and programs are borne by those who benefit from and contribute to additional demand.

Policies

Policy 1. Require that neighborhood parks be developed at a minimum rate of 2.5 acres per 1,000 population. This requirement may be met all or in part by on-site recreation for such developments as Planned Unit Developments. The City of Bakersfield may allow credit to meet the neighborhood parks requirement.

Policy 3. Require all developers to dedicate land, provide improvements and/or in lieu fees to serve the needs of the population in newly developing areas.

Kern County Multi-Jurisdiction Hazard Mitigation Plan

The purpose of the multi-hazard mitigation plan is to reduce or eliminate the long-term risk to people and property from natural hazards and their effects in the County. The 2019–2020 Update to the Plan aims to help Kern County become less vulnerable to losses from future disasters. Hazard mitigation is the use of sustained, long-term actions to reduce the loss of life, personal injury, and property damage that can result from a disaster. The multi-jurisdictional plan includes the County and the incorporated municipalities of Arvin, Bakersfield, California City, Delano, Maricopa, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. The County also encompasses areas of land controlled by federal and State land management agencies, including the CAL FIRE, the Bureau of Land Management, and the Bureau of Reclamation. While other levels of government have jurisdiction in these parts of the County, the Hazard Mitigation Plan could also be used to document and coordinate mitigation efforts among federal, State, and local jurisdictions. This plan also covers 49 special districts that include school, airport, community service, water, park and recreation, sanitation, and other districts (KCFD 2020).

Among the items assessed, the plan evaluates the risks associated with seismic events, dam failure, severe weather, and wildfire. The plan also provides an inventory of critical facilities, which have the potential to cause disruption of vital socioeconomic activities if they are destroyed, damaged, or functionally impaired. These include police stations, fire stations, hospitals, elder care facilities, day care facilities, buildings containing hazardous materials, schools, transportation infrastructure, utilities, and government buildings.

Kern County Fire Code

Kern County applies and utilizes the National Fire Code set forth by the National Fire Protection Association, the California Fire Code, the California Building Code, and Chapter 17.32 of the Kern County Code of Building Regulations (Fire Code) to regulate fire safety.

Kern County has adopted, by reference, portions of the California Building Standards Code and the Uniform Fire Code, with modifications and amendments, in Chapter 17.32. The purpose of this code is to prescribe the minimum requirements necessary to establish a reasonable level of fire

safety to protect life and property from hazards created by fire, explosion, and dangerous conditions.

The Kern County Fire Code defines a hazardous fire area as any land that is covered with grass, grain, brush, or forest and situated so that a fire originating upon such land would present an abnormally difficult job of suppression, such as an inaccessible location, and would result in great and unusual damage through fire or the resulting erosion.

Kern County Fire Department Strategic Fire Plan

The KCFD's 2021 Strategic Fire Plan was developed collaboratively between federal, State, city, and County agencies to identify and prioritize pre-fire and post-fire management strategies and tactics meant to reduce the loss of values at risk within the department. Similar to other plans, this document includes stakeholder contributions and priorities and identifies strategic targets for pre-fire solutions, as defined by people who are familiar with local fire behavior and risk. The plan is designed to be an assessment and planning tool only, and it is the responsibility of those implementing the projects to ensure that all environmental compliance and permitting processes are met, as necessary. The plan gives an overview of KCFD Battalions and ranks these areas in terms of priority needs, as well as identifies the SRA. According to the plan, 69% of Kern County is within an SRA. The County is broken up into six different fuel management areas: Tehachapi, Western Kern, Northern Kern, Mount Pinos Communities, Kern River Valley, and the Valley. (KCFD 2022).

Kern County Community Wildfire Protection Plan

The Kern County Community Wildfire Protection Plan (CWPP) was developed in response to the federal Healthy Forests Restoration Act. The CWPP was adopted in March 2022. It addresses hazards and risks of wildland fire throughout the County and makes recommendations for fuel reduction projects, public outreach and education, structural ignitability reduction, and fire response capabilities. The goal of the CWPP is to enable local communities to improve their wildfire-mitigation capacity, identify high fire-risk areas, and prioritize areas for mitigation, fire suppression, and emergency preparedness. The CWPP enhances public awareness by helping residents better understand the natural- and human-caused risk of wildland fires (SWCA 2022).

Kern County Emergency Operations Plan

The Kern County Emergency Operations Plan (EOP), adopted May 1, 2022, is an all-hazards document that facilitates the integration and coordination of planning efforts of the County with those of its cities, special districts, and the State region. The purpose of the EOP is to provide the basis for a coordinated response before, during, and after a disaster affecting the County or other jurisdictions in the EOP's Operational Area. The EOP establishes policies, stipulates an emergency management organization, and assigns roles and responsibilities to ensure the effective management of emergency operations. The EOP also identifies sources of external support which might be provided through mutual aid and specific statutory authorities by other jurisdictions, State and federal agencies, and the private sector (County OES 2022).

4.15.4 Impacts and Mitigation Measures

Methodology

The methodology used to evaluate potential public services impacts includes the following:

- (1) evaluation of existing fire and police services and personnel for the fire and law enforcement stations serving the Project site
- (2) determination of whether the existing fire and law enforcement services and personnel are capable of servicing the Project, in addition to the existing population and building stock
- (3) determining whether the Project's contribution to the future service population would cause fire or police station(s) to operate beyond service capacity.

The determination of the significance of the Project on public services considers the ability of the service providers to provide and maintain acceptable levels of service, which in turn would require the construction of new or expansion of existing facilities. The methodology for this analysis included a review of published information pertaining to KCFD and KCSO.

Thresholds of Significance

The Kern County California Environmental Quality Act (CEQA) Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on public services.

A project could have a significant adverse effect on public services if it would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:
 - Fire Protection
 - Police Protection
 - Schools
 - Parks
 - Other Public Facilities

Project Impacts

Impact 4.15-1: The Project would result in the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection services or police protection services.

Fire Protection

Construction

The on-site construction workforce would consist of up to 503 full-time equivalent jobs; however, the average daily workforce would vary depending upon the stage in construction. It is anticipated that the construction workforce would commute to the Project site each day from local communities and report to the designated construction staging yards prior to the beginning of each workday.

During construction of the Project, service demands as a result of added personnel on-site would occur. Typically, service demands per employee are less than service demands per resident. Nevertheless, the addition of construction personnel on the Project site could result in an increase in demand for fire protection services. While this would be an increase above existing levels, the presence of construction workers on the site would be temporary, as the construction period for the Project would last approximately 24 months. Therefore, it would not substantially increase the service demand for fire protection services in Kern County. Furthermore, the Project would implement **Mitigation Measure (MM) 4.9-11** (see Section 4.9, *Hazards and Hazardous Materials* for full mitigation measure text), which requires the development and implementation of a Fire Safety Plan. This plan ensures that procedures and emergency fire precautions are implemented. The Fire Safety Plan would be for use during the construction period and would include emergency fire precautions for vehicles and equipment, as well as implementing fire rules and trainings so temporary employees are equipped to support handling fire threats.

Additionally, in accordance with **MM 4.15-1**, the IPG Kern County 52 Holdings, LLC (Project proponent) would work with the County to determine how the use of sales and use taxes from construction of the Project can be maximized to support public facilities in the County. **MM 4.15-2** would require the Project proponent to submit a letter detailing the hiring efforts prior to commencement of construction, which encourages all contractors of the Project site to hire at least 50% of their workers from local Kern County communities. This would minimize potential impacts due to an increase in fire service demands from temporary workers. No new or physically altered KCFD or CAL FIRE facilities would be required to accommodate the proposed Project during construction, and no significant environmental impacts would result. Therefore, construction-related impacts would be less than significant.

Operation

The proposed Project would include the development of a 923,130 square foot two-story warehouse distribution facility and associated improvements on approximately 49.05 acres. The facility would employ approximately 437 employees over the course of three shifts. Therefore, implementation of the proposed Project would potentially increase the demand for existing fire and emergency services.

The proposed Project's primary function would be a high cube transload warehouse storage to facilitate material handling equipment, storage and logistics uses, with up to 20% of the facility used for cold storage. The warehouses would serve trucks exclusively and would require truck doors of various types. Interior warehouse design would be subject to tenant improvements to accommodate specialized storage, handling and distribution for varied goods and materials used in commerce, including but not limited to finished products, consumer goods, parts, materials, tires, and tools typically found in a modern distribution/logistics facility consistent with M-1 PD-H Zone District.

Any modification to the interior of the building (i.e., tenant improvements) will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (e.g., Building Code, Fire Code, Plumbing Code, etc.). Outdoor storage is not proposed as part of this Project. It is possible that certain goods and products allowed by the Zone District would require fire protection measures for warehousing and distribution from the Project site. This includes additional coordination with the Fire Department for tire storage and distribution, which would be coordinated through the tenant improvement approval process.

All uses permitted in the Project will be required to comply with the application sections of the Fire Code (and all codes) prior to the issuance of a building permit for those tenant improvements. Fire protection requirements are based on the number of residents and workers in the KCFD primary service areas. Service demand is primarily tied to population, not building size, because emergency medical calls are typically the majority of responses provided by the fire department. As the number of residents and workers increases, so does the number of emergency medical calls. There are no residential uses proposed as a part of the Project. Therefore, no residents would occupy the Project site, and an increase in service demands as a result of an increase in residential uses would not occur.

Furthermore, the Project would be in conformance with the MBGP land use designation and county zoning classification for the site. Therefore, buildout of the industrial uses at this location would have already been accounted for in County's long-range projections for demands on fire and emergency services.

The potential increase in demand for fire and emergency services would be mitigated through preparation of a Fire Safety Plan, implemented per **MM 4.9-11** (see Section 4.9, *Hazards* and Hazardous Materials for full mitigation measure text) and would help reduce fire risks onsite. In addition, all Project facilities would be designed and constructed in accordance with the 2022 California Fire Code and Kern County Fire Code, such that fire hazards are reduced and/or avoided,

and the facilities would be required to have a fire rating in conformance with County and California Building Code standards. Therefore, with implementation of **MM 4.9-11**, **MM 4.15-1** and **MM 4.15-2**, the proposed Project would not result in the need for new or physically altered KCFD facilities, and significant environmental impacts would not result. Impacts would be less than significant.

Law Enforcement Protection

Construction

As described above in Section 4.15.2, *Environmental Setting*, the KCSO provides primary law enforcement protection services for the Project site and surrounding areas. The Kern County Sheriff's Office is located at 1350 Norris Road, approximately 0.66 miles southwest of the Project site. The East Bakersfield Substation is located at 1726-1798 Flower Street, approximately 5.3 miles southeast of the Project site. The need for police protection services would potentially increase during construction of the proposed Project, similar to fire protection services.

The Project site is in a relatively urban location surrounded by a variety of uses. Due to the nature of the Project, it may attract vandals or present other security risks that would make Project facilities susceptible to crime. Fences would be installed around the perimeter of the proposed Project area to help reduce unauthorized access for safety and security purposes, and temporary pole lighting would also be used. All fencing shall comply with applicable requirements of the Kern County Public Works Department/Building Inspection Division. Thus, a substantial increase in demand for law enforcement services is not expected.

Construction activities may temporarily increase traffic volumes along Airport Drive and Merle Haggard Drive. The added traffic associated with workers commuting to the Project site, haul routes, deliveries, and other Project-related traffic would be temporary; therefore, would it not have a significant adverse effect on the KCSO protective service provision or CHP's ability to patrol the highways.

While construction of the Project would increase the number of people on the Project site, the increase would be temporary, would not substantially increase the service demand for law enforcement protection services in Kern County, and would not result in the need for new facilities. Therefore, new or physically altered KCSO facilities would not be required to accommodate the proposed Project, and significant environmental impacts are not anticipated. Impacts would be less than significant.

Operation

Project operation could attract vandals or present other security risks. As described above, Project facilities could be susceptible to crime due to the nature of the proposed Project as a warehouse and distribution facility. Project site security features would include an 8-foot metal fence enclosing the entire developed area, with 8' sliding fence and sliding gate to enclose truck trailer parking. An 8-foot metal fence and sliding gate is also proposed along the perimeter of the project site. All fencing shall comply with applicable requirements of the Kern County Public Works Department/Building

Inspection Division. Thus, a substantial increase in demand for law enforcement services is not expected.

The proposed Project would generate approximately 371 daily truck trips, with a total of 1,430 daily vehicle trips. Ingress to the proposed Project would be taken from five entrances off of Airport Drive and three off of Hanger Way. The additional volume of worker vehicles and trucks accessing the Project site during daily operations may result in a decrease in level of service at some surrounding intersections and may cause some delay in the flow of traffic (see Section 4.17, *Transportation and Traffic*). Traffic delay impacts associated with development of the Project will be addressed through **Mitigation Measures MM 4.17-1, MM 4.17-2, and MM 4.17-3. MM 4.17-1** which would reduce level of service deficiency through the construction of intersection improvements. Any additional improvements would be addressed through the payment of Transportation Traffic Impact Fees required by **MM 4.17-2**. To further reduce traffic delay, **MM 4.17-3** would require the preparation of a Transportation Demand Management program to reduce Vehicle Miles Traveled associated with employee trips.

Furthermore, the Project would be in conformance with the MBGP land use designation and county zoning classification for the site. Therefore, buildout of the industrial uses at this location would have already been accounted for in County's long-range projections for demands on emergency services and law enforcement. Therefore, while some increased delay may result in surrounding traffic patterns, impacts to law enforcement and emergency response would be less than significant.

The proposed Project would not result in the need for new or physically altered governmental facilities—the construction of which could cause significant environmental impacts—in order to maintain acceptable service ratios, response times, or other performance objectives for law enforcement services.

Schools, Parks, and Other Public Facilities

Construction

As stated previously, the on-site construction workforce would consist of up to 503 individuals; however, the average daily workforce would vary depending upon the stage in construction. The presence of construction workers would be temporary and is anticipated to last approximately 24 months. These construction workers would likely come from an existing local and/or regional construction labor force and would not likely relocate their households as a consequence of working on the Project. Additionally, implementation of **Mitigation Measure MM 4.15-2** would encourage all contractors of the Project site to hire at least 50% of their workers from local Kern County communities. If temporary housing should be necessary, it is expected that accommodations would be available in the nearby hotels. Due to the short-term nature of increased employment of construction workers on the Project site, as well as the anticipation that at least 50% of construction workers would be sourced from local communities, a notable increase in the residential population and therefore the use of schools, parks, and other public facilities in the surrounding area is not expected.

Accordingly, there would not be a corresponding demand or use of the local schools, parks, or public facilities. Thus, Project construction workers would not increase demand for local schools, parks, or other public facilities such that substantial physical deterioration of such facilities would occur, nor result in substantial environmental impacts associated with the construction of new or physically altered facilities in order to maintain acceptable service ratios. Impacts during construction would be less than significant.

Operation

As described above, the facility would employ approximately 437 employees over the course of three shifts. The proposed facility would operate 24 hours a day, 365 days a year. A portion of employees are anticipated to be drawn from the local labor force and would commute to the Project site. Though it is unlikely that the proposed Project would bring in employees from outside of the region during the operational phase, the potential does remain. If employees were hired from out of the area and had to relocate to eastern Kern County, the resulting addition of potential families to this area would not result in a substantial increase in the demand on schools, parks, and other public facilities, as accommodations for housing would be available in the nearby communities, including the greater Bakersfield area as well as Oildale, Lamont, and Buttonwillow.

Furthermore, the Project would be in conformance with the MBGP land use designation and county zoning classification for the site. Therefore, buildout of the industrial uses at this location would have already been accounted for in County's long-range projections for demands on schools, parks, and other public facilities.

To ensure impacts would be less than significant, the Project would implement **Mitigation Measure MM 4.15-1**, where the Project proponent would work with the County to determine how the use of sales and use taxes from construction of the Project can be maximized to support public facilities in the County. Additionally, **Mitigation Measure MM 4.15-2** would be implemented, which would encourage all contractors of the Project site to hire at least 50% of their workers from local Kern County communities.

Therefore, staff required during operation would not increase demand for public facilities such that substantial physical deterioration of such facilities would occur, nor would Project operation require the construction or expansion of public facilities which might result in significant environmental impacts. No new or physically altered park, school or community facilities would be required to accommodate the proposed Project, as jobs would be drawn from local areas. Thus, the proposed Project would not result in substantial environmental impacts associated with the construction of new or physically altered facilities in order to maintain acceptable service ratios, and impacts would be less than significant.

Mitigation Measures

Implement **Mitigation Measure MM 4.9-11** (see Section 4.9, *Hazards and Hazardous Materials*), and **MM 4.17-1, MM 4.17-2, MM 4.17-3** (see Section 4.17, *Transportation and Traffic*).

MM 4.15-1 The Project proponent/operator shall work with the County to determine how the use of sales and use taxes from construction of the Project can be maximized. This process shall include, but is not necessarily limited to, the Project proponent/operator obtaining a street address for the Project Site which is within the unincorporated portion of Kern County for acquisition, purchasing and billing purposes, and registering this address with the State Board of Equalization, so that the sales tax is received by unincorporated Kern County. As an alternative to the aforementioned process, the Project proponent/operator may make arrangements with Kern County for a guaranteed single payment that is equivalent to the amount of sales and use taxes that would have otherwise been received (less any sales and use taxes actually paid); with the amount of the single payment to be determined via a formula approved by Kern County. The Project proponent/operator shall allow the County to use this sales tax information publicly for reporting purposes.

MM 4.15-2 Prior to the issuance of any building permits on the property, the Project operator shall submit a letter detailing the hiring efforts prior to commencement of construction, which encourages all contractors of the Project site to hire at least 50 percent of their workers from local Kern County communities. The Project operator shall provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notifying the training programs of job availability, all in conjunction with normal hiring practices of the contractor.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.9-11** (*Hazards and Hazardous Materials*), **MM 4.17-1, MM 4.17-2, MM 4.17-3** (see Section 4.17, *Transportation and Traffic*) **MM 4.15-1**, and **MM 4.15-2** impacts would be less than significant after mitigation.

4.15.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project site. The cumulative impact analysis area for public services includes the service areas for each of the fire, police, schools, parks, and other public facilities serving the Project site. For both the KCSO and the KCFD, service areas comprise unincorporated areas of Kern County. Construction of the proposed Project would consist of up to 503 full-time equivalent jobs, and operation would consist of approximately 437 employees. As previously discussed, based on the additional employees, implementation of the proposed Project would increase the demand for existing fire and emergency services. To reduce any potential impacts, **Mitigation Measures MM 4.9-11, 4.15-1, and 4.15-2** would be implemented. **Mitigation Measure MM 4.9-11** requires implementation of a Fire Safety Plan during Project construction and operation that would include notification procedures and emergency fire precautions to help reduce fire risks and the consequential need for fire protection services onsite. **Mitigation Measure MM 4.15-1** requires the proponent/operator to work with the County to determine how the use of sales and use taxes from construction of the Project can be maximized to support public facilities in the County. **Mitigation Measure MM 4.15-2** encourages all contractors of the Project site to hire at least 50% of their workers from Kern County communities. Therefore, with the inclusion of the aforementioned mitigation measures, impacts of the Project would be less than significant.

Additionally, other projects within the cumulative study areas also would be expected to avoid or mitigate impacts on public services. The proposed Project and cumulative projects would be required to comply with the goals, policies, and implementation measures of the MBGP. Therefore, the Project's incremental effect is not cumulatively considerable when viewed in connection with the effects of other closely related past projects, the effects of other current projects, and the effects of probable future projects. The Project would not create a cumulatively considerable impact related to public services with the incorporation of **Mitigation Measures MM 4.9-11, 4.15-1, and 4.15-2**.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.9-11** (see Section 4.9, *Hazards and Hazardous Materials*), **MM 4.15-1** and **MM 4.15-2** would be required.

Level of Significance After Mitigation

Cumulative impacts would be less than significant.

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Section 4.16

Recreation

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Section 4.16

Recreation

4.16.1 Introduction

This section of the Draft Environmental Impact Report describes the affected environment and regulatory setting regarding parks and recreation facilities. It also describes the impacts on parks and recreation facilities that could result from implementation of the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the Metropolitan Bakersfield General Plan (MBGP) and Housing Element, the 2022 Kern County Housing Element Annual Report, the Kern County Parks and Recreation Master Plan, and demographic information from the California Department of Finance and the U.S. Census Bureau.

4.16.2 Environmental Setting

National Parks and Trails

Several National Parks are located in California's southern Sierra Nevada Mountains and southern desert region, which are within and/or accessible from Kern County. The Sequoia National Park is located in Kern County and is approximately 76 miles northeast of the project site. Death Valley National Park, Kings Canyon National Park, and Mojave National Preserve are all accessible from Kern County and are all at least 100 miles from the project site. The Pacific Crest Trail also traverses Kern County along a route that lies east of Tehachapi and Lake Isabella and is approximately 44 miles from the project site.

State

California State Parks owns, maintains, and operates one State Park (Red Rock Canyon), two State historic parks (Fort Tejon and Tomo-Kahni), and one State reserve (Tule Elk) in Kern County. The closest of these is the Tule Elk State Reserve, which is approximately 20 miles from the project site. All other parks are over 20 miles away. In the adjacent Los Angeles County to the south, there are two State parks (Antelope Valley Indian Museum and Saddleback Butte), one State historic park (Antelope Valley Indian Museum), and one State reserve (Antelope Valley California Poppy Reserve).

Regional Setting

The Kern County Parks and Recreation Department operates and maintains eight regional parks (Buena Vista Aquatic Recreational Area, Greenhorn Mountain Park, Leroy Jackson Park, Kern River County Park, Lake Isabella, Lake Woollomes, Metro Recreation Center, and Tehachapi

Mountain Park). These parks provide more than 4,282 acres of parkland for recreational purposes (Kern County Parks and Recreation, 2010).

As shown in the Kern County Parks and Recreation Department Master Plan, Kern River County Park is the closest regional park to the Project (approximately 8.36 miles east of the project site) and would be the primary regional park proximate to the project site. The Kern River County Park is a 1,012-acre recreational complex just north of Bakersfield that includes two group camping areas and a group picnic area. The park also contains Hart Memorial Park and Lake Ming. The Buena Vista Aquatic Recreational Area is farther out (approximately 19.34 miles southwest of the project site) and would be another regional park to service the project site. Buena Vista is a human-made site approximately 25 miles southwest of Bakersfield and contains two lakes. Lake Webb has an elongated shape of 873 acres available for boating, jet-skiing, and fishing and an additional 125 acres for jet-skiing. Buena Vista also houses the 86-acre Lake Evans, which is used for sailing, fishing, and boating at no more than 5 miles per hour. The park also includes sand volleyball courts, horseshoe pits, concession building, a picnic area, a boat ramp, and a fuel station.

Local Setting

The Kern County Parks and Recreation Department operates and maintains 35 neighborhood parks throughout the County, as well as several public buildings that are used for recreational purposes (Kern County Parks and Recreation, 2010). The neighborhood parks closest to the project site are North Highlands Park (approximately 0.57 mile northeast) and North Meadows Park (approximately 0.59 mile southeast) (Kern County Parks and Recreation, 2010).

4.16.3 Regulatory Setting

Federal

As the Project is not located wholly or partially within any federal recreational facilities, there are no federal recreation regulations applicable to this Project.

State

As the Project is not located wholly or partially within any federal recreational facilities, there are no State recreation regulations applicable to this Project.

Local

Metropolitan Bakersfield General Plan

The Project is located within the administrative boundaries of the MBGP area and therefore would be subject to the MBGP's applicable policies and measures.

Chapter XI – Parks Element

Goals

Goal 1: Provide parks and recreation facilities to meet the planning area's diverse needs.

Goal 2: Supply neighborhood parks at a minimum of 2.5 acres per 1,000 persons throughout the plan area.

Goal 3: Provide four acres of park and recreation space for each 1,000 persons (based on the most recent census) for general regional recreation opportunity as a minimum standard. Park and recreational space includes mini-parks, neighborhood parks, community parks and regional parks.

Goal 4: Provide a diversity of programs and facilities to meet the needs of the full range of citizen groups including the elderly, handicapped, and economically disadvantaged.

Goal 5: Coordinate development of park facilities and trail systems throughout the plan area which enhance the centers concept and complement unique visual or natural resources.

Goal 6: Ensure that all park and recreation facilities are adequately designed, landscaped, and maintained.

Goal 7: Require that the costs of park and recreation facilities and programs are borne by those who benefit from and contribute to additional demand.

Goal 8: Provide safety, accessibility, and compatibility between parks and adjacent residential areas through "good neighbor" park practices.

Goal 9: Coordinate efforts by volunteer agencies, civic organizations, private enterprise, and all government entities to assure the provision of a complete range of recreation opportunities for all residents of the planning area.

Policies

Policy 1: Require that neighborhood parks be developed at a minimum rate of 2.5 acres per 1,000 population. This requirement may be met all or in part by on-site recreation for such developments as Planned Unit Developments. The City of Bakersfield may allow credit to meet the neighborhood parks requirements.

Policy 33. Monitor the parkland dedication ordinance with in-lieu fee provisions.

Kern County Parks and Recreation Master Plan

The Kern County Parks and Recreation Master Plan (Master Plan) was published in 2010 with the primary purpose of guiding decision-makers in the development of the Kern County park system through 2028 (Kern County Parks and Recreation Department, 2010). The recommendations, goals, and strategies presented in the Master Plan were developed according to an assessment of

all existing County parks and public input to identify community priorities. The project site is located within Kern County Area 3: Greater Bakersfield and within the North of the River (NOR) Recreation and Park District (Kern County Parks and Recreation Department, 2010:II-6). This central portion of Area 3: Greater Bakersfield is served by two regional parks, 13 local/neighborhood parks, two golf courses, and seven public buildings. Altogether, Area 3 encompasses 1,718 acres of park land.

Policies

Policy 1: Provide a quality park and open space system that supports opportunities for active and passive recreation to meet the wide-ranging recreational and social needs of the diverse, varied communities of Kern County.

Policy 2: Maximize resources and expand opportunities for the County-wide parks and recreation system by reforming the financial support structure for the park system, enhancing organizational capabilities, and pro-actively engaging other organizations and the community at large through partnerships and other cooperative arrangements.

Goals

Goal 2: Provide a minimum standard 5 acres of park land per 1,000 residents. This standard would apply to regional parks serving the entire County, as well as local parks in unincorporated areas of the County not served by a local park district.

Goal 7: Achieve sustainable long term financial viability for the Kern County park system to satisfy operational needs, capital requirements and desired recreation services.

- Consider the use of park impact fees and if implemented periodically evaluate those fees to ensure that rates are sufficient to meet increased recreation needs caused by development.
- Evaluate fees received from the rental of the County's parks and recreational facilities, including community/recreation buildings, so as to minimally cover the cost of operating and managing those facilities.

North of the River Recreation and Park District

The Project is also within the boundaries of the NOR Recreation and Park District. NOR Recreation and Park District's mission is to provide recreation programs and facilities for the benefit of the NOR community, which is 215 square miles in size, has a population of approximately 153,000 residents, and encompasses five school districts. Included within the NOR Recreation and Park District service boundaries are 24 park sites totaling 269.8 developed acres. The major sources of revenues for NOR Recreation and Park District are property taxes, program fees, and grants.

4.16.4 Impacts and Mitigation Measures

Methodology

Recreational facilities and opportunities in the area were evaluated to determine whether they would be adversely affected by the Project. This evaluation included consideration of the overall number and area of parklands or other recreational facilities and proximity to the Project, and whether the Project would result in overuse and deterioration of existing facilities or necessitate the construction of new facilities.

Thresholds of Significance

The Kern County California Environmental Quality Act (CEQA) Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on recreation. A project could have a significant adverse effect on recreation if it would include or require either of the following:

- Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- Include Recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

Project Impacts

Impact 4.16-1: The project would result in increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would occur or be accelerated.

The Project would result in a temporary increase in population within the site vicinity during construction as a result of the influx of construction workers. The on-site construction workforce would consist of up to 503 full-time equivalent jobs; however, the average daily workforce would vary depending upon the stage in construction. The temporary increase in use of recreation facilities during construction that might be caused by an influx of workers would be minimal. Any construction workers who relocate to the area may use the neighborhood and regional parks in the vicinity of the project site. Given that there are several parks in the project vicinity (including Kern River County Park), the limited addition of people to the area, and the short-term duration of construction, the potential temporary increase in use by project personnel at any one park is not anticipated to be significant or result in a detectable physical deterioration of parks. Furthermore, the NOR Recreation and Park District submitted a comment letter (Appendix A.2) in response to the circulation of the Notice of Preparation and stated the Project would have no impact on the

services or facilities of its District. Therefore, a less than significant impact would occur in this regard.

The Project would operate 24 hours a day and 365 days a year, and it would employ approximately 437 employees over the course of three shifts. The resulting addition of families to this area would potentially increase the number of users at local parks. However, as described in Section 4.15, *Public Services*, **Mitigation Measure MM 4.15-2** will require the project proponent hire a minimum of 50% of its workforce locally. Section 4.13, *Population and Housing*, further discusses that the permanent employees required for the Project are expected to predominantly come from the surrounding areas within the Bakersfield Metropolitan Statistical Area, without the need for relocation. Temporary construction employees and permanent employees needed during the operational phase of the Project could also be provided by Kern County, without the need for relocation, given the high unemployment rate in the region. Operation of the Project would not result in a substantial influx of people (such as a new residential development, school, or other use that would result in large volumes of people residing or traveling to the project site); therefore, the potential increase in use by project personnel at any one neighborhood and/or regional park is not anticipated to be significant or result in a detectable physical deterioration of parks. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Impact 4.16-2: The project would include recreational facilities or require construction or expansion of recreational facilities that might have an adverse physical effect on the environment.

As described previously, the Project would employ approximately 437 employees over the course of three shifts, operating 24 hours a day, 365 days a year. Some employees are anticipated to be drawn from the local labor force and would commute to the project site. Though it is unlikely that the Project during the operational phase would bring in employees from outside of the region, the potential does remain. If employees were hired from out of the area and had to relocate to Kern County, the resulting addition of potential families to this area would not result in a substantial increase in the demand on surrounding parks and other public recreational facilities, as accommodations for housing would be available in the nearby communities, including the greater Bakersfield area as well as Oildale, Lamont, and Buttonwillow, where such facilities already exist.

Furthermore, the Project would conform with the MBGP land use designation and county zoning classification for the site. Therefore, buildout of the industrial uses at this location would have already been accounted for in County's long-range projections for demands on parks and other public recreational facilities.

There is no intended construction or expansion of recreational facilities with Project construction. Implementation of the Project would not result in substantially increased demand for parks or recreational facilities and would therefore not require construction of new or expanded recreational facilities. No impact would occur.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

No impact would occur.

4.16.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects and the effects of other projects in the vicinity of the project site. The geographic scope for cumulative impacts on recreation resources includes portions of the MBGP area and the City of Shafter that fall within the 6-mile radius of the project site, which includes a total of 29 projects.

The Project's incremental impact of an increased use of parks would be minimal because of the relatively small number of permanent employees working on-site and the temporary nature of the workers involved in construction of the Project. With the need for more jobs as shown by the high unemployment rate of 8.9% in Kern County (California Employment Development Department, 2024), the population is not anticipated to substantially increase, but rather, a need can be met.

The Project, in combination with the other projects is not anticipated to increase the need for recreational facilities. The approximate 503 employees needed to construct the Project would meet the need of jobs in the surrounding unincorporated communities and the approximate 437 full-time employees would further serve that need, meaning that the population would likely increase only slightly and use of recreational facilities would not increase substantially. Therefore, the Project's contribution to increased park usage would be negligible. The MBGP Parks Element also sets forth goals by the County to ensure adequate park and recreational facilities are in place to serve residents. This includes providing 4 acres of park and recreation space for each 1,000 persons and ensuring that all park and recreation facilities are adequately designed, landscaped, and maintained. Existing local parks and recreational facilities are also being maintained, having undergone renovation from 2023 to 2024 to ensure that facilities are updated and accessible to current and future residents (City of Bakersfield, 2024). Though a slight increase in population is expected as a result of the Project, it is expected for the County to accommodate this by upgrading existing parks or constructing new facilities based on population growth for the entire

unincorporated County. Therefore, the Project would not combine with impacts from cumulative projects to result in a significant impact.

There is no new construction or expansion of parks proposed as a part of this Project; therefore, the Project would result in little to no impact in this regard. Furthermore, impacts of the Project would not have the potential to combine with impacts from cumulative projects to result in a significant impact.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Cumulative impacts would be less than significant.

Section 4.17

Transportation and Traffic

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Section 4.17

Transportation and Traffic

4.17.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding transportation. It also evaluates the impacts on transportation that would result from implementation of the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary.

A description of the environmental setting (affected environment) for transportation is presented below in Section 4.17.2, *Environmental Setting*, including discussion of the regional and local facilities, existing conditions, other transportation facilities, and military aviation facilities in the vicinity. The regulatory setting applicable to Transportation is presented in Section 4.17.3, *Regulatory Setting*. Section 4.17.4, *Impacts and Mitigation Measures*, discusses project impacts and associated mitigation measures.

This section is informed by the September 17, 2024, Traffic Impact and Vehicle Miles Traveled (VMT) Analysis Report and December 9, 2024, Supplemental Truck Routing Assessment prepared by David Evans and Associates, Inc. (Traffic Study, Appendix J), as well as the February 18, 2025, memo containing recommend road improvements from the Kern County Public Works Department. The Traffic Impact and VMT Analysis Report provides an analysis of existing and proposed traffic conditions whereas the supplemental assessment identifies preferred routes for heavy truck trips during construction and operation. Potential transportation impacts to intersections and roadways were determined for both development/construction and operation of the Project using the most recently published roadway traffic volumes and project-related vehicle trip calculations. Discussion and evaluation of transportation facilities, including pavement conditions, are based on site surveys with applicable thresholds and impacts identified. Additional impacts to the airport system are also discussed.

4.17.2 Environmental Setting

The Project site is located on vacant land within Kern County, approximately 1.7 miles north of the nearest administrative boundaries of incorporated City of Bakersfield. The circulation system in the Project vicinity is made up of a combination of both State and County facilities. State Route 99 is located west of the Project site, which provides regional access to the Project. Local roads that would provide access to the site include Airport Drive, which is a north to south collector bordering the eastern boundary of the Project site and Boughton Drive, a local road which borders the northern boundary of the Project site. Hanger Way and Skyway Drive border the southern and western boundaries of the Project site, respectively.

Regional and Local Roadway Facilities

Regional Roads

State Route 99 and State Route 65 are both within the vicinity of the Project. SR 99 is located to the west of the Project vicinity and runs southeasterly, and SR 65 terminates at SR 99 to the west of the Project vicinity. SR 178 is located south of the Project site in the City of Bakersfield. SR 99 and SR 65 would provide general access to the Project vicinity during the construction and operational phases.

State Route 99 (SR 99) is a major, four to six lane freeway that connects with Interstate 5 extends north from the Mexican border to the Canadian border and provides access for goods movement, shipping, and travel. This highway crosses the central portion of Kern County and is designated as an arterial/major highway by the Circulation Element of the Kern County General Plan. Access to the Project Site from SR 99 is provided by interchanges at State Road and Olive Drive. State Route 99 is sometimes referred to as the “Golden State Highway.”

State Route 65 (SR 65) is a major highway that runs in a north-south direction and is composed of two segments in the Central Valley. It starts at SR 99 in unincorporated Oildale north of Bakersfield and continues into Tulare County. SR 65 is a two-lane highway with an interchange at SR 99. It is designated as a four-lane expressway from SR 99 to Imperial Avenue. Access to the Project Site from SR 65 is provided by interchanges at Merle Haggard Drive

State Route 178 (SR 178) begins at SR 99 just west of downtown Bakersfield and continues northeast to Lake Isabella. SR 178 runs in an east-west direction and is a divided four- to six-lane freeway that becomes a two-lane highway east of Miramonte Drive towards East Bakersfield.

Interstate 5 (I-5) is a major, four-lane, divided freeway that extends north from the Mexican border to the Canadian border and provides access for goods movement, shipping, and travel. This freeway crosses the western portion of Kern County and is designated as an arterial/major highway by the Circulation Element of the Kern County General Plan and is under the jurisdiction of Caltrans.

Local Roads

County roads that are expected to provide access to the Project site, and also serve as links for regional traffic, include Airport Drive and merle Haggard Drive. Primary access to the Project site would be via Airport Drive and Boughton Drive. Both of these primary access roads, along with other nearby local roads are described more thoroughly below:

Airport Drive is an arterial highway per the Metropolitan Bakersfield General Plan (MBGP) Circulation Element with a 110-foot right-of-way to accommodate a six-lane traveled way. It extends north through Oildale from its interchange connection at SR 99. It operates as a four-lane roadway with a raised median between SR 99 and West China Grade Loop. Airport Drive provides access to residential, commercial and industrial land uses, and passenger terminal for Meadows Field Airport.

Boughton Drive is designated as a collector in the MBGP Circulation Element with a 55-foot half-width right-of-way to accommodate a four-lane traveled way. It begins at Meadows Field Airport and runs east to terminate at Airport Drive to connect to West Day Avenue.

Norris Road is classified as an arterial highway per the MBGP Circulation Element and accommodates a four-lane traveled way.

Hanger Way is designated as a collector in the MBGP Circulation Element with a 90-foot right-of-way to accommodate a four-lane traveled way. It is approximately 0.35 mile and runs north to south to connect Boughton Drive to the north and Skyway Drive to the south.

Decatur Street accommodates a four-lane traveled way and generally extends east to west. Decatur provides access to primarily residential, commercial and industrial uses.

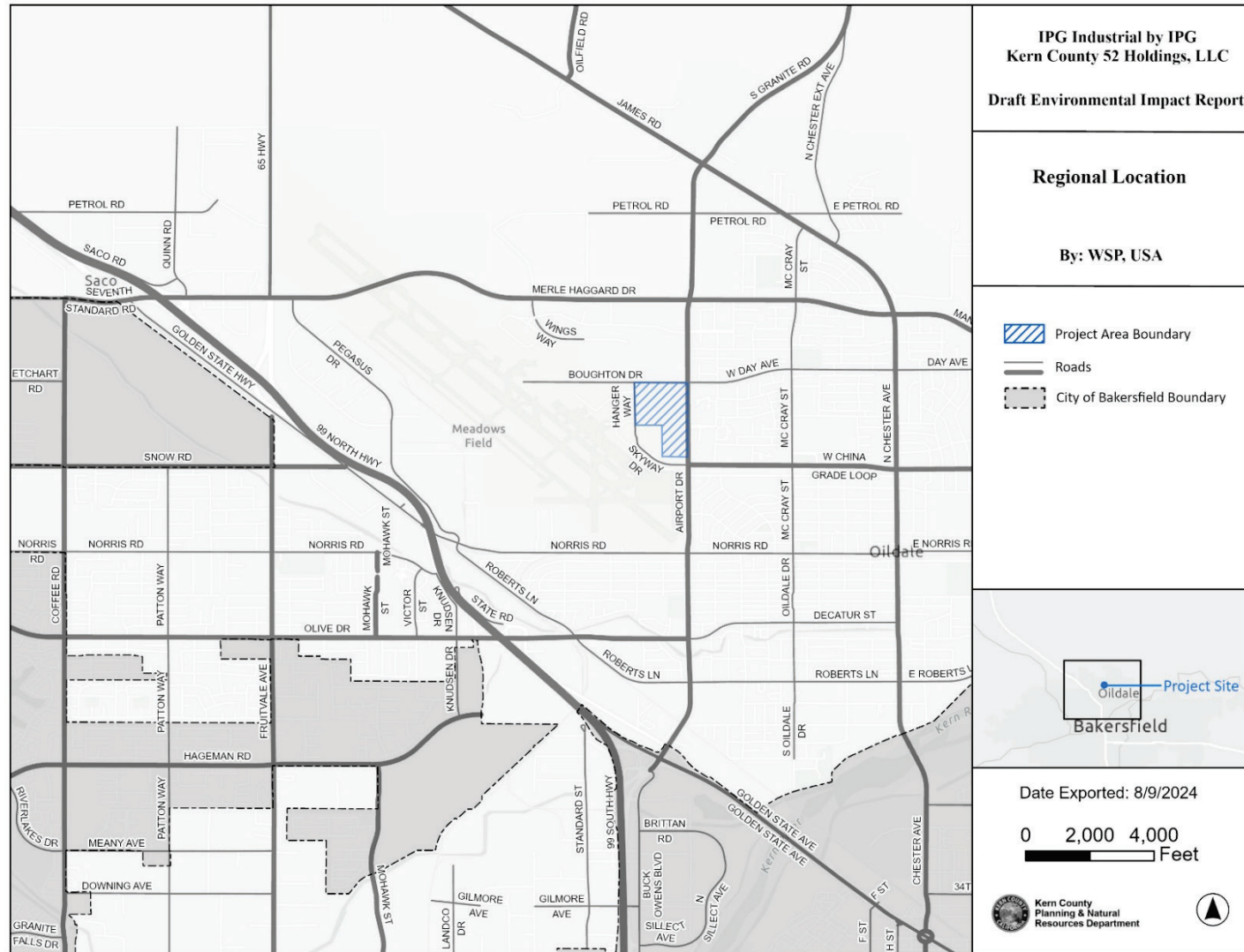
Roberts Lane accommodates a four-lane traveled way and generally extends east to west. Decatur provides access to primarily residential, commercial and industrial uses.

Merle Haggard Drive is a major east-west route in the north metropolitan Bakersfield area. It extends from west of Interstate 5 (I-5) to Chester Avenue and Manor Street in Oildale. It is designated as an expressway between Santa Fe Way and SR 99 and as an arterial road for the remaining segments. This corridor provides access to residential, commercial, industrial and agricultural land uses.

Olive Drive is an east-west arterial road with an interchange connection at SR 99. It is a major access route for traffic between SR 99 and commercial and residential areas to the west and the community of Oildale to the southeast.

China Grade Loop is an east-west arterial road that extends from Airport Drive to the east. In the Project vicinity, it is a four-lane fully improved facility and as a two-lane facility east of Manor Street. China Grade Loop provides access to residential and industrial land uses.

Figure 4.17-1: Regional Location



Other Transportation Facilities

Public Transit

Public transportation in Kern County is generally provided by Kern Regional Transit, which offers 13 fixed routes throughout the County for passenger bus service. Based on the Kern County Active Transportation Plan (ATP), Metropolitan Bakersfield is a major destination for regional public transit routes. However, there are no accessible public transit stops within the vicinity of the Project site. The nearest route serviced by Kern Regional Transit is Route 110 Delano – Bakersfield, which runs north and south on SR 99. Route 110 serves Delano, McFarland, Wasco, Shafter, and Bakersfield. The closest bus stop is located approximately 6.5 miles away in the City of Bakersfield, at F Street at 30th Street. While the Project site is located outside of the service area of the Kern Transit Dial-A-Ride services, available services start at the southeast intersection of Airport Drive at West China Grade Loop.

Golden Empire Transit District also operates fixed daily bus routes within the City of Bakersfield and surrounding unincorporated areas (GetBus 2024). The nearest bus route serviced by Golden Empire Transit District is the 45 route (Oildale/Foothill) which has stops along McCray Street (east of Airport Drive) and a peak-hour service frequency of no less than 30 minutes. The closest bus stop on the route is located 0.5 mile east of the Project at the intersection of China Grade Loop and McCray Street.

Non-Motorized Transportation

According to the ATP, the Metropolitan Bakersfield area contains nearly 260 miles of existing bicycle facilities within the Bakersfield Metro Northeast Area. Key regional connections in Metropolitan Bakersfield include the Kern River Parkway Path extending 32 miles along the Kern River from China Grade Loop to Enos Lane, and the bicycle lanes on Chester Avenue linking Oildale with Bakersfield.

There are bicycle facilities near the Project site; however, there are no existing facilities on roadways adjacent to the site. There are Class II bike lanes that terminate at Airport Drive directly east of the Project. The bike lanes run along China Grade Loop and terminate at Skyway Drive, and along West Day Avenue that terminate at Boughton Drive. A Class III bike route terminates at Merle Haggard Drive and Airport Drive.

There are no dedicated pedestrian facilities in the vicinity of the Project site, or along the surrounding roadways. The nearest pedestrian facilities, such as protected cross walks and sidewalks, are across the street at the corner of Airport Drive and West Day Avenue, with the nearest bike lanes, along McCray Street, approximately 0.5 mile east of the site.

Railway

Amtrak provides passenger rail service from Bakersfield north to Sacramento with their San Joaquin Train service (Amtrak 2023). Rail service from Bakersfield to Los Angeles is provided via San Francisco. A direct connection to the south through Los Angeles is not currently provided, but

high-speed rail service between San Francisco and Los Angeles via Bakersfield may be available by 2029 (Amtrak 2023; California High-Speed Rail Authority 2023). The high-speed rail would provide connections through this corridor via Fresno to Bakersfield, Bakersfield to Palmdale, and Palmdale to Los Angeles.

Freight service is provided by the San Joaquin Valley Railroad, which operates throughout the San Joaquin Valley and interchanges with the Union Pacific Railroad and the Burlington Northern Santa Fe Railroad in Bakersfield. Commodities transported by the San Joaquin Valley Railroad include petroleum and agricultural products.

Aircraft and Military Aviation

Public Airports

The closest airport facility is the Meadows Field Airport, located at 3701 Wings Way, less than 0.5 miles west of the Project site. This airport is County-owned and operated, encompasses 1,357 acres, and supports two runways. Kern County has adopted an Airport Land Use Compatibility Plan (ALUCP) to comply with the State Aeronautics Act (Public Utilities Code commencing with Section 21670), which identifies the Project site within the Sphere of Influence. Direct flights are available to Los Angeles, San Francisco, Phoenix, Houston, and other U.S. cities.

Bakersfield Municipal Airport is located in the south-central Bakersfield area. Other public airports include Delano Municipal Airport, Wasco-Kern County Airport, Shafter Airport-Minter Field in northern Kern County, and Taft-Kern County Airport in southwestern Kern County. Smaller public airports (averaging less than 100 aircraft operations per month) are also located in western Kern County, including Lost Hills-Kern County Airport, Elk Hills-Buttonwillow Airport, and Poso-Kern County Airport (AirNav2024).

Private Airports

A number of private airstrips are located throughout western Kern County, including Tejon Ag and Paradise Lakes airfields south of Bakersfield, Majors Airfield north of Bakersfield, Joe Gottlieb Field Airport west of Bakersfield, and Cashen Airport northwest of Wasco. There are no private airports within the vicinity of the Project site (AirNav 2024).

Military Aviation

Kern County has two military aviation installations: the China Lake Naval Air Weapons Station and Edwards Air Force Base, both of which are located in the eastern part of the County. Nearby, in Kings County, is the Lemoore Naval Air Station, located in the central San Joaquin Valley. Each installation has unique flying operations and their primary mission is to test military aircraft and weapon systems. Due to the military bases' required flying mission, aircraft fly beyond the boundaries of the installations at supersonic speeds and sometimes as low as 200 feet above the ground. In order to minimize flight hazards to non-military aircraft, the military aircraft from these installations fly within restricted airspace known as the Joint Service Restricted R-2508 Complex. This complex is considered an extension of the airspace for these military aviation installations and

their flying missions. Mojave Air and Space Port and Inyo Kern Airport both provide civilian flight testing and drone testing capabilities. Mojave Air and Space Port is also the first Federal Aviation Administration (FAA) licensed civilian space flight testing facility in the United States. There are no military airports within the vicinity of the Project site (AirNav n.d.) and due to the Project site's location within western kern, there is overlap between the Project site and the Eastern Kern airports and military airspace.

Bicycle and Pedestrian Facilities

According to the 2018 Kern Region ATP, the Kern region's bikeway network is not consistent throughout the Plan area. The Plan area includes the following cities and unincorporated areas: Arvin, Metropolitan Bakersfield (including Oildale, Lamont, and Weedpatch), Bodfish, Buttonwillow, California City, Delano, Ford City, Frazier Park, Greater Taft Area (City of Taft, Ford City, South Taft, and Taft Heights), Lake Isabella, Maricopa, McFarland, Mojave, Ridgecrest, Rosamond, Shafter, Tehachapi, and Wasco. Some cities and communities have networks that provide opportunities for safe and comfortable travel both on street and off-street, while others lack formalized bicycle infrastructure. Additionally, significant gaps remain in the system, and closing these gaps is critical to providing good connectivity for people bicycling both within each community and while traveling between neighboring communities.

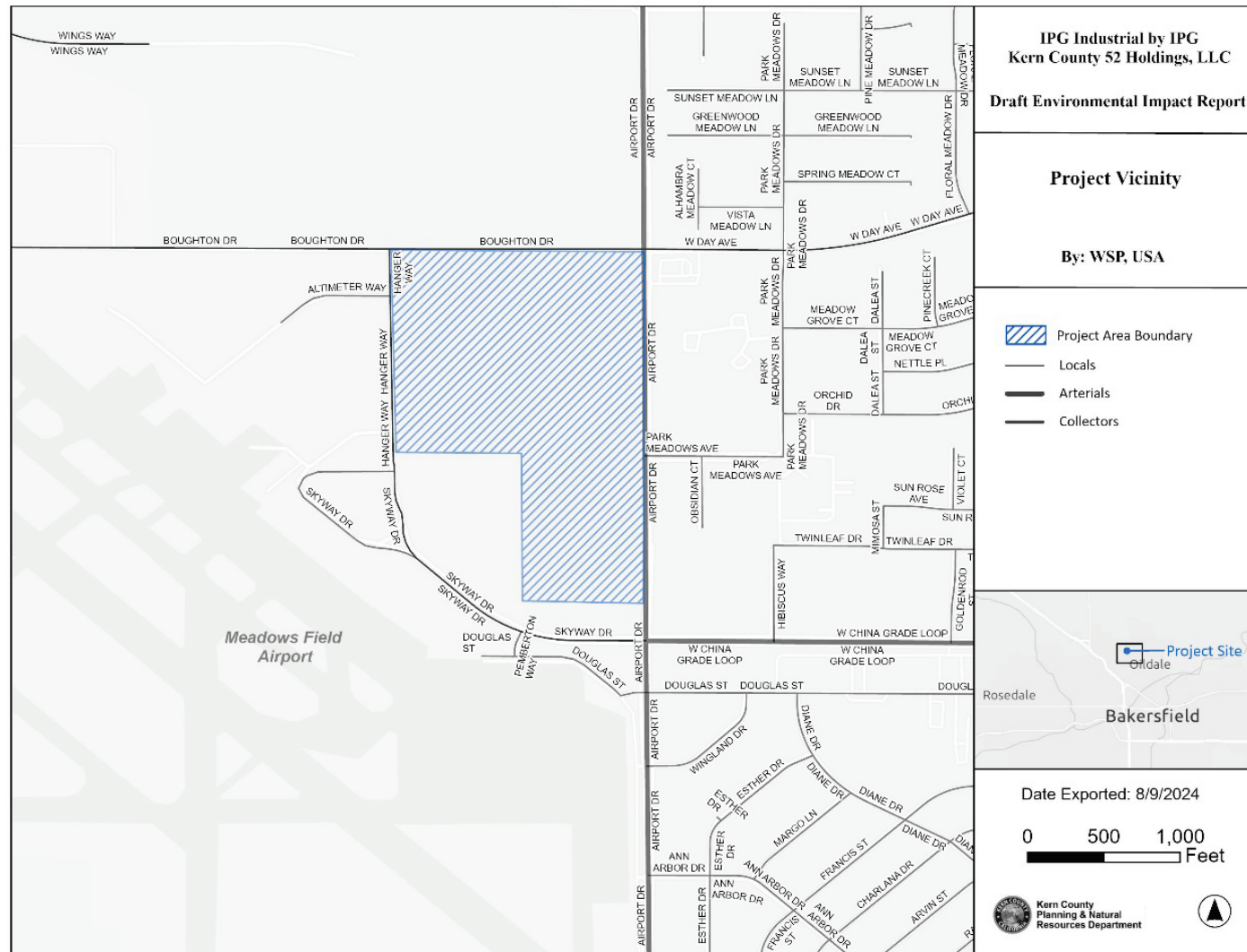
Like the Kern region's existing bikeway network, the region's pedestrian conditions vary widely. Some communities have a comprehensive sidewalk network with crossings and signage, while infrastructure is limited in other locations.

There are Class II Bike lanes that terminate at two intersections adjacent to the Project site (Airport Drive at West Day Avenue and Airport Drive at Hanger Way/Skyway Drive), per the Kern County ATP (Northeast Area). Additionally, the Project contains five driveways along Airport Drive, which is identified as containing a Class II Bike Lane along the roadway, per the 2012 Bicycle Master Plan.

Local Setting

The approximately 49.05-acre site consists of vacant, undeveloped land. As discussed previously and as shown on **Figure 4.17-2**, the Project site is bound to the north by Boughton Drive; to the south by Skyway Drive; to the east by Airport Drive and to the west by Hanger Way. Primary site access would be from Airport Drive, via five commercial width driveways. Access would be to the site's parking lots, and, indirectly, internal roads on the western and eastern sides of the building. Two driveways of the five would provide access to Building 1's secure gated loading dock and truck/trailer parking areas. Access from Hanger Way would be provided via three driveways. One of the three driveways would provide automobile access to the parking lots, and the other two would provide primary truck access to Building 1's secure gated loading dock and truck/trailer parking area with direct connections to the loading dock access gates.

Figure 4.17-2: Local Circulation System



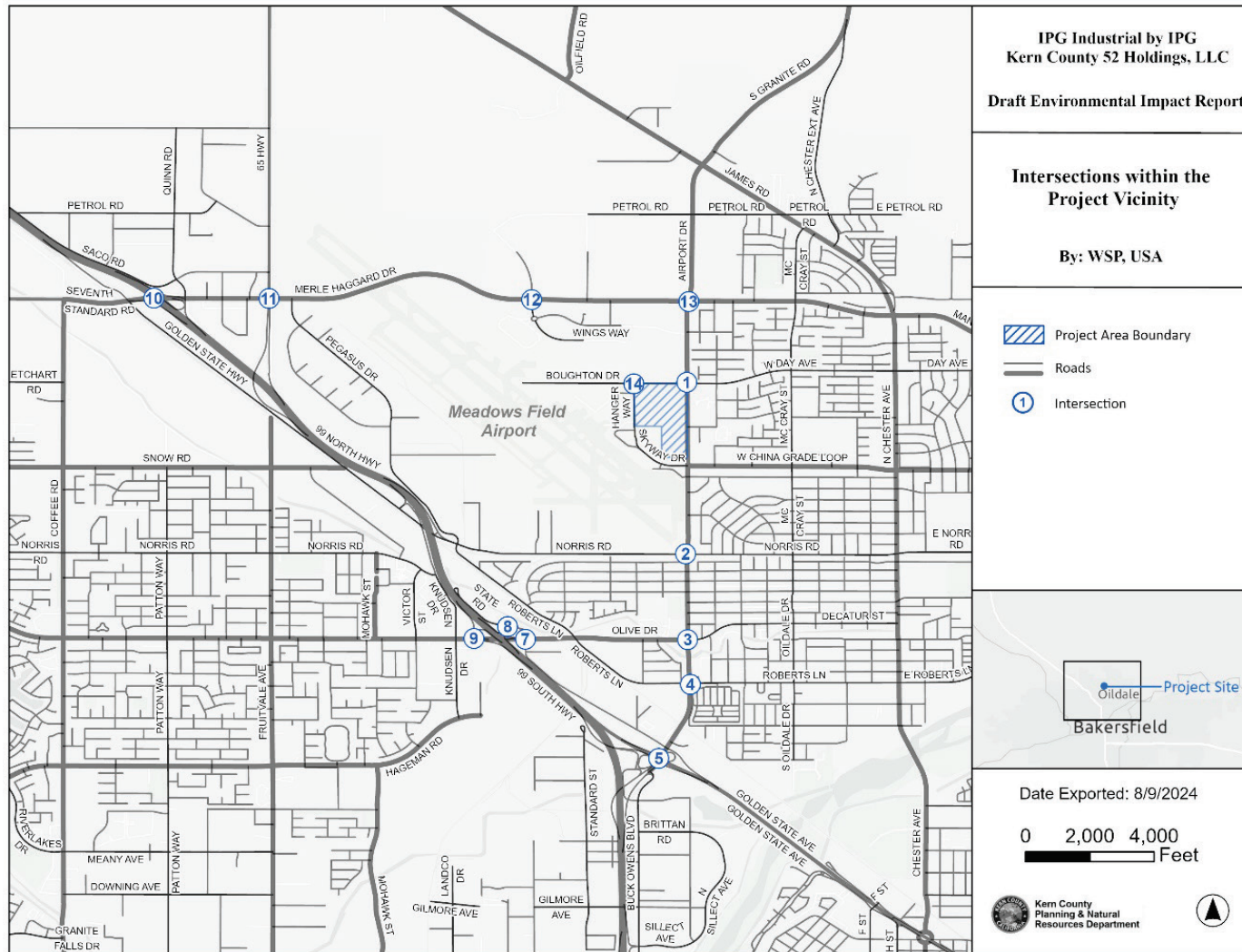
Study Area Intersections

As discussed earlier, the LOS analysis is being presented for information and MBGP Consistency. Considering the access routes described above, the traffic impact analysis evaluated 14 study intersections in the vicinity of the Project site, where Project traffic would contribute to traffic volumes and vehicle turning movements. The Study conducted an analysis of these key intersections utilizing Synchro software which implements methods of the Highway Capacity Manual, 6th Edition (HCM 6) used in this report.

Fourteen intersections were analyzed in the study:

- Airport Drive/Boughton Drive/West Day Avenue
- Airport Drive/Norris Road
- Airport Drive/Olive Drive/Decatur Street
- Airport Drive/Roberts Lane
- Airport Drive/State Road/SR 99 northbound (NB) off-ramp
- Olive Drive/Roberts Lane
- Olive Drive/State Road
- State Road/SR 99 NB ramps
- Olive Drive/SR 99 SB ramps
- Golden State Highway SB ramps/7th Standard Road
- SR 99 Connector to Highway 65/Merle Haggard Drive
- Merle Haggard Drive/Wings Way
- Airport Drive/Merle Haggard Drive
- Boughton Drive/Hanger Way

Figure 4.17-3: Intersections within Project Vicinity



Existing Level of Service

As illustrated below in **Table 4.17-4**, most intersections in the study area operate at acceptable levels. However, three intersections operate at a LOS below “C”. These include the following: Olive Drive and Robets Lane, Olive Drive and SR 99 SB ramps, and Golden State Highway SB ramps and 7th Standard Road. The intersection of Golden State Highway SB ramps and 7th Standard road operates at level E for both peak hours, while the other two intersections operate at below acceptable levels (D and E) at PM peak hours, respectively. It is important to note that these intersections are operating below LOS C today, without the Project.

4.17.3 Regulatory Setting

Federal

Federal Aviation Administration

The FAA regulates aviation at the Meadows Field Airport and other regional, public, private, and military airports. The FAA regulates objects affecting navigable airspace and structures taller than 200 feet according to Federal Aviation Regulation 14 Code of Federal Regulations (CFR) Part 77. For structures of this size, both the U.S Department of Transportation and the California Department of Transportation (Caltrans) require the proponent to submit FAA Form 7460-1, Notice of Proposed Construction or Alteration.

As described in 14 CFR 77.9 (Construction or Alteration Requiring Notice), each sponsor who proposes any of the following construction or alteration scenarios shall notify the FAA in the form and manner as follows:

If requested by the FAA, or if you propose any of the following types of construction or alteration, you must file notice with the FAA:

- (a) Any construction or alteration that is more than 200 feet above ground level at its site.
- (b) Any construction or alteration that exceeds an imaginary surface extending outward and upward at any of the following slopes:
 - (1) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway more than 3,200 feet in actual length, excluding heliports.
 - (2) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport described in paragraph (d) of this section with its longest runway no more than 3,200 feet in actual length, excluding heliports.
 - (3) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport described in paragraph (d) of this section.
- (c) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of

Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) or (b) of this section.

- (d) Any construction or alteration on any of the following airports and heliports:
 - (1) A public use airport listed in the Airport/Facility Directory, Alaska Supplement, or Pacific Chart Supplement of the U.S. Government Flight Information Publications.
 - (2) A military airport under construction, or an airport under construction that will be available for public use.
 - (3) An airport operated by a Federal agency or the U.S. Department of Defense.
 - (4) An airport or heliport with at least one FAA-approved instrument approach procedure.
- (e) A notice for construction or alteration is not needed for the following:
 - (1) Any object that will be shielded by existing structures of a permanent and substantial nature or by natural terrain or topographic features of equal or greater height, and will be located in the congested area of a city, town, or settlement where the shielded structure will not adversely affect safety in air navigation.
 - (2) Any air navigation facility, airport visual approach or landing aid, aircraft arresting device, or meteorological device meeting FAA-approved siting criteria or an appropriate military service siting criteria on military airports, the location and height of which are fixed by its functional purpose.
 - (3) Any construction or alteration for which notice is required by any other FAA regulation.
 - (4) Any antenna structure of 20 feet or less in height, except one that would increase the height of another antenna structure.

Per 14 CFR 77.7, notification requirements include sending one executed form set of FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the Manager, Air Traffic Division, FAA Regional Office having jurisdiction over the area within which the construction or alteration will be located. The notice required must be submitted at least 45 days before the earlier of the following dates: (1) the date the proposed construction or alteration is to begin; or (2) the date an application for a construction permit is to be filed.

Failure to comply with the provisions of Federal Aviation Regulation Part 77 is subject to civil penalty under Section 902 of the Federal Aviation Act of 1958, as amended, and pursuant to United States Code Title 49, Section 46301(a).

State

California Department of Transportation (Caltrans) – Encroachment Permits and Transportation Permits (Oversized Permits)

Caltrans has discretionary authority with respect to highways under its jurisdiction and may, upon application and if good cause appears, issue a special permit to operate or move a vehicle or combination of vehicles or special mobile equipment of a size or weight of vehicle or load exceeding the maximum limitations specified in the California Vehicle Code. The Caltrans Transportation Permits Issuance Branch is responsible for the issuance of these special transportation permits for oversize/overweight vehicles on the State Highway System.

California Vehicle Code, Division 15, Chapters 1 through 5 (Size, Weight, and Load)

Includes regulation pertaining to licensing, size, width, and load of vehicles operated on highways. Caltrans has the discretionary authority to issue special permits for the movement of vehicles/vehicle loads that exceed statutory limitations for size or weight on State roadways as specified in Division 15 of the California Vehicle Code.

California Street and Highway Code Section 660, 670-695, and 1450 et seq.

This code requires permits from Caltrans for any roadway encroachment during truck transportation and delivery, includes regulations for the care and protection of State and County highways, provides for the issuance of written permits, and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roads. The project will require use of County and State roadways.

Senate Bill 375

Senate Bill 375 (codified in the Government Code and the Public Resources Code) took effect in 2008 and provides a new planning process to coordinate land use planning, regional transportation plans, and funding priorities in order to help California meet the greenhouse gas (GHG) reduction goals established by Assembly Bill (AB) 32. Senate Bill 375 requires metropolitan planning organizations (MPOs) to incorporate a Sustainable Communities Strategy in their Regional Transportation Plans to achieve GHG emissions reduction targets by reducing VMT from light-duty vehicles through the development of more compact, complete, and efficient communities.

Senate Bill 375 required the California Air Resources Board (CARB) to set regional targets for reducing GHG from passenger vehicle use. In 2010, CARB established targets for 2020 and 2035 for each region in California governed by an MPO. The Kern Council of Governments (Kern COG) is the MPO for the Kern region as designated by the federal government, and the Regional Transportation Planning Agency as designated by the State of California.

Senate Bill 743

Senate Bill 743 was signed into law September 2013, and includes several changes to California Environmental Quality Act (CEQA) for projects located in areas served by transit (for example, transit-oriented development, or TOD). Most notably with regard to transportation and traffic assessments, Senate Bill 743 changes the way that transportation impacts are analyzed under CEQA (see Public Resources Code Section 21099). Senate Bill 743 required the Governor's Office of Planning and Research to amend the CEQA Guidelines to exclude level of service (LOS) and auto delay when evaluating transportation impacts.

With implementation of Senate Bill 743, new criteria have been established to promote the reduction of GHG emissions, the development of multimodal transportation networks, and a diversity of land uses. The Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA provided recommendations for updating the State's CEQA Guidelines in response to Senate Bill 743 and contained recommendations for a VMT analysis methodology in an accompanying Technical Advisory on Evaluating Transportation Impacts in CEQA (Technical Advisory).

The Guidelines, including the Technical Advisory, recommended use of automobile VMT per capita as the preferred CEQA transportation metric, along with the elimination of automobile delay/LOS for CEQA purposes statewide. Public Resources Code Section 21099 and CEQA Guideline Section 15064.3 reflect this change. Under Section 21099, automobile delay, as measured by LOS or similar measures of traffic congestion or vehicular capacity, is not considered a significant effect on the environment. Senate Bill 743 does not prevent an agency from continuing to analyze delay or LOS as part of other plans (that is, a general plan), fee programs, or ongoing network monitoring. So long as the LOS analysis is not a basis for challenging the legal adequacy of an EIR under CEQA. *Citizens for Positive Growth & Preservation v City of Sacramento* (2019) 43 C5th 609, 624 (LOS-based challenge moot in light of enactment of Guideline 15064.3.) Therefore, the LOS analysis in this EIR is for informational purposes only. Consistency with the General Plan policies pertaining to LOS are addressed in the documents for Precise Development Plan No. 72, Map No. 102, apart from the CEQA process.

Local

Kern COG 2022 Regional Transportation Plan/Sustainable Communities Strategy

Kern COG, as a regional transportation agency, prepares the Regional Transportation Plan (RTP) to examine long-range transportation issues, opportunities, and needs for Kern County. The 2022 RTP is a 24-year blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide development of the planned multimodal transportation systems in Kern County (Kern COG 2022). The 2022 RTP includes a policy element that is shaped by goals, policies, and performance indicators, a description of planning assumptions for regional growth and future needs for travel and goods movement, a Sustainable Communities Strategy that identifies planning strategies and illustrative development patterns that would reduce GHG emissions, and a plan of action for the region to pursue to meet identified transportation needs. The

RTP was developed through a continuing, comprehensive, and cooperative planning process, and provides for effective coordination between local, regional, State, and federal agencies.

The RTP promotes a more efficient transportation system that calls for fully funding alternative transportation modes, while emphasizing transportation demand and transportation system management approaches for new highway capacity. The Constrained Program of Projects (included in the 2022 RTP, Chapter 5, Strategic Investments, Table 5-1), includes projects that move the region toward a financially constrained and balanced system. Constrained projects have undergone air quality conformity analyses to ensure that they contribute to the region's compliance with State and federal air quality rules. The project would assist the County with its GHG reduction goals.

Kern COG Congestion Management Program

All urbanized areas with a population larger than 200,000 residents are required to have a Congestion Management System, program, or process. Kern COG refers to its congestion management activities as the Congestion Management Program (CMP). Kern COG was designated as the Congestion Management Agency.

The CMP provides a systematic process for managing congestion and information regarding (1) transportation system performance and (2) alternative strategies for alleviating congestion and enhancing the mobility of persons and goods to levels that meet State and local needs. The purpose of the CMP is to ensure that a balanced transportation system is developed that relates population growth, traffic growth and land use decisions to transportation system LOS performance standards and air quality improvement. The program attempts to link land use, air quality, transportation, and advanced transportation technologies as integral and complementary parts of this region's plans and programs.

The purpose of defining the CMP network is to establish a system of roadways that will be monitored in relation to established LOS standards. At a minimum, all State highways and principal arterials must be designated as part of the Congestion Management System of Highways and Roadways. Kern County has 18 State-designated highways.

Regional Transportation Improvement Program

The Kern COG RTIP is intended to be a funding mechanism for roadway improvements which are regional in nature, and for which cost sharing by all new development is appropriate. The RTIP is a program jointly developed, approved, and administered by the County and the City of Bakersfield. The program was adopted in the 1980s and has been updated periodically to reflect the latest development growth patterns and construction costs. The current version of the RTIP is the fourth update to the program and was adopted in 2009. The current version has been held in place for an extended period as a stable reference for projects within the Thomas Roads Improvement Program. With the program nearly completed, the County is working on an update to the RTIP, which would reflect current development conditions, particularly in the vicinity of Meadows Field.

Kern County Airport Land Use Compatibility Plan

An Airport Land Use Commission is required by California law in every county with an airport in its jurisdiction. Each commission must develop a plan for promoting and ensuring compatibility between each airport in the county and surrounding land uses, in the form of an ALUCP. The County of Kern adopted its Airport Land Use Compatibility Plan (ALUCP) on September 23, 1996. Kern County's ALUCP establishes procedures and criteria to assist Kern County and affected incorporated cities in addressing compatibility issues between airports and surrounding land uses. The Project is located adjacent to the County's Meadow Field Airport and within a designated Airport Land Use Compatibility Zone.

Kern COG 2022 Regional Transportation Plan/Sustainable Communities Strategy

As a regional transportation agency, Kern COG prepares the RTP to examine long-range transportation issues, opportunities, and needs for Kern County. The 2022 RTP is a 24-year blueprint that establishes a set of regional transportation goals, policies, and actions intended to guide development of the planned multimodal transportation systems in Kern County (Kern COG 2022). The 2022 RTP includes a policy element that is shaped by goals, policies, and performance indicators, a description of planning assumptions for regional growth and future needs for travel and goods movement, a Sustainable Communities Strategy that identifies planning strategies and illustrative development patterns that would reduce GHG emissions, and a plan of action for the region to pursue to meet identified transportation needs. The RTP was developed through a continuing, comprehensive, and cooperative planning process, and provides for effective coordination between local, regional, State, and federal agencies.

2012 Kern County Bicycle Master Plan

The 2012 Kern County Bicycle Master Plan is an adopted bicycle master plan that covers unincorporated Kern County, including Metropolitan Bakersfield. It provides a broad vision for encouraging bicycle travel, as well as strategies and actions to improve conditions for bicycling, including complete street recommendations. The plan provides direction for expanding the existing bikeway network and connecting gaps for continuous networks.

Metropolitan Bakersfield General Plan

The Project site falls within the jurisdiction of the MBGP. The service goal for roadway facilities within the metropolitan area is LOS "C." Per the MBGP, on streets where the existing LOS is below C, special consideration to identify mitigation measures to prevent and/or delay degradation of the existing LOS would be required. The MBGP goals and policies necessary to achieve this standard and are applicable to the Project are provided below. As noted above, an inconsistency with these policies is not a basis for challenging the legal adequacy of an EIR under CEQA.

Chapter III: Circulation Element

A. Streets

Goals

Goal 1. Provide a safe and efficient street system that links all parts of the area for movement of people and goods.

Goal 3. Minimize the impact of truck traffic on circulation, and on noise sensitive land uses.

Goal 5. Provide a system of freeways which maintains adequate travel times in and around the metropolitan area.

Goal 7. Develop and maintain a circulation system that supports the land use plan shown in the general plan.

Policies

Policy 3. Provide additional right-of-way and pavement width to accommodate turn lanes at intersections.

Policy 5. Place traffic signals to minimize vehicular delay.

Policy 6. Design and locate site access driveways to minimize traffic disruption where possible considering items such as topography, past parcelization and other factors.

Policy 7. Minimize direct and uncontrolled property access from arterials.

Policy 8. Limit full access median breaks on arterials to a maximum of three per mile and include left-turn lanes at each.

Policy 9. Consider the construction of grade separations for intersections unable to meet minimum level of service standards.

Policy 10. Design local streets to conform to topography. Allow for deviation from "grid" system on local streets when they do not interfere with other traffic policies and traffic flows.

Policy 17. Require buildings expected to be serviced by delivery trucks to provide off-street facilities for access and parking.

Policy 23. Provide freeways in a manner similar to that shown on the Circulation Plan Map. Actual alignments to be determined by specific corridor studies.

Policy 24. Identify route alignments and right-of-way needs.

Policy 25. Identify interchange locations and preliminary designs.

Policy 26. Preserve freeway and interchange rights-of-way consistent with corridor study alignments and specifications.

Policy 34. Minimize the impacts of land use development on the circulation system. Review all development plans, rezoning applications, and proposed general plan amendments with respect to their impact on the transportation system, and require revisions as necessary.

Policy 35. Require new development and expansion of existing development in incorporated areas to fully provide for on-site transportation facilities including streets, curbs, traffic control devices, etc. Within unincorporated areas street improvements will be determined by County Ordinance.

Implementation

Implementation 28. Periodic review and if needed, revision of adopted ordinances that includes a Level of Service standard for the city and county to include a definition of Level of Service “C”, procedures for how it is measured, and mitigation measures to keep from exceeding the standard.

B. Transit

Goals

Goal 4. Reduce traffic congestion and parking requirements and improve air quality through improved transportation services.

Policies

Policy 8. Encourage businesses and government to use flexible or staggered work hours so that travel demand is spread more evenly throughout the day.

C. Bikeways

Goals

Goal 1. Provide a circulation system which recognizes and response to the needs of bicycle travel.

Goal 2. Provide a circulation system that minimizes cyclist/motorist conflicts.

Goal 3. Provide a continuous easily-accessible bikeway system within the metro area.

Goal 4. Provide mechanisms to ensure the prompt implementation of the bikeway system.

Policies

Policy 5. Consider bicycle safety when implementing improvements for automobile traffic operations.

Policy 11. Construct bike lands in conjunction with all street improvement projects that coincide with the Bikeway Master Plan.

D. Parking

Goals

Goal 1. Provide an efficient parking system to respond to the needs of motorists.

Goal 2. Satisfy parking requirements in all new developments (residential, commercial, industrial, etc.) through off-street facilities.

Policies

Policy 3. Ensure that adequate on-site parking supply and parking lot circulation is provided on all plans in accordance with the adopted parking standards.

E. Airports

Goals

Goal 2. Develop, operate, and maintain Meadows Field and Bakersfield Municipal Airpark to meet aviation needs in the metro area.

Policies

Policy 2. Ensure compatibility between the general plan, airport master plans and airport land use compatibility plan.

4.17.4 Impacts and Mitigation Measures

Methodology

This section describes the impact analysis relating to transportation and traffic for the Project. It describes the methods used to determine the impacts of the Project and lists the thresholds used to determine whether an impact would be significant. Impacts were evaluated based on the Traffic Impact Analysis and VMT attached as Appendix J of this EIR.

Vehicle Miles Traveled

In 2013, the State of California approved legislation (Senate Bill 743) to change the primary basis of evaluation of traffic impacts in CEQA from LOS to VMT. CEQA Guidelines section 15064.3 was approved in December 2018 and became effective in early 2019. Section 15064.3 required agencies to implement the new VMT requirement no later than July 1, 2020.

In November 2017, the Governor's Office of Planning and Research (OPR) released a technical advisory containing recommendations regarding the assessment of VMT, proposed thresholds of significance, and potential mitigation measures for lead agencies to use while implementing the required changes contained in Senate Bill 743. OPR recommends that for most instances a per service population threshold should be adopted and that a 15% reduction below that of existing development would be a reasonable threshold.

The updated guidelines eliminate the use of automobile delay metrics, such as LOS, from determining significant environmental impacts from vehicle travel. In December 2018, the California Natural Resources Agency certified and adopted the CEQA Guidelines update, including a new CEQA Guidelines section implementing Senate Bill 743 (State CEQA Guidelines § 15064.3). VMT has been identified as the most appropriate metric to evaluate a project's transportation impacts, as projects that result in lower than average VMT support goals of reducing GHG emissions, while projects that result in higher than average levels of vehicle travel contribute to an increasing rate of GHG emissions.

Accordingly, as of July 1, 2020, under the statute and CEQA Guidelines, localities are required to rely on VMT instead of traffic delay as the primary metric for evaluating transportation impacts in CEQA documents. The existence of automobile delay impacts, or the adequacy of an LOS analysis, is not a basis under CEQA for challenging an EIR (*Citizens for Positive Growth & Preservation v. City of Sacramento* [2019] 43CA5th 609, 624). Accordingly, any traffic system improvements required to address LOS will be addressed through the Project Conditions of Approval.

This Section includes a description and discussion summarizing the LOS analysis in the Traffic Impact Analysis prepared for the Project. The included discussion is for information purpose and to make General Plan Consistency Analysis since the General Plan still includes policies regarding LOS levels on roadways.

Because Kern County and Kern COG have not adopted any policies or guidelines/methodologies establishing a threshold of significance for determining VMT analysis, the OPR Technical Advisory was used as the basis for establishing a threshold of significance and screening criteria for the Project.

The Kern COG regional transportation model was used to estimate baseline VMT and project VMT for existing and future cumulative scenarios. The model baseline year is 2020, and the cumulative future year is 2046. The output from the Kern COG model provides a detailed breakdown of the number of employees and trips and VMT by trip purpose and by countywide traffic analysis zone.

Operational Analysis

The area analyzed for the Project's operational analysis is generally bounded by Merle Haggard Drive on the north, the Airport Drive at SR 99 off-ramp on the south, Airport Drive on the east, and SR 99 on the west. The Operational Analysis includes a total of 14 intersections (11 signalized, three unsignalized). The scope of the Operational Analysis was developed in association with the Kern County Public Works Department-Traffic Division and Caltrans District 6.

Turn Movement Counts

Traffic counts were performed over the existing street network to determine existing street network to determine turning movements. These counts were conducted in September 2023 by Newport Traffic Studies, an independent traffic data collection company. These counts were collected during the AM (7:00 a.m. to 9:00 a.m.) and PM (4:00 p.m. to 6:00 p.m.) peak periods. The full existing turn movement counts are included in Appendix J of this EIR.

Project Trip Generation and Design Hour Volumes

The trip generation and design hour volumes for the high cube transload and cold storage warehouse uses were calculated using the Institute of Transportation Engineers (ITE) Trip Generation, 11th Edition. Trip generation and design hour volumes are available in Appendix J of this EIR. Passenger car and truck mode share percentages (percentage of total) were obtained from the South Coast Air Quality Management District High Cube Warehouse Trip Generation Study (2016), which was based on data from eight high cube warehouses in San Bernardino County's Inland Empire. The Average Daily Trip (ADT), AM and PM peak-hour rate equations, and peak-hour directional splits for ITE Land Use Codes 154 (High Cube Transload Warehouse) and 157 (High Cube Cold Storage Warehouse) were used to estimate project traffic. The peak hours of adjacent streets were determined to be 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. for morning and evening peak hours. **Table 4.17-1** presents the results.

Table 4.17-1: Project Trip Distribution

Land Use		Gross Floor Area	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
				In	Out	Total	In	Out	Total
Building 1		738.5	Vehicle Trip Generation Rates (trips per 1,000 square feet of gross floor area)						
	High Cube Transload Warehouse (comprises 80% of building; ITE land use category 154)		1.4	0.06	0.02	0.08	0.03	0.07	0.10
			Total Vehicle Trip Generation						
			1,034	46	14	60	21	53	74
		Mode Share	Project Trip Generation by Vehicle Type						
	Passenger Cars (percentage of total)	74.22%	768	34	10	44	15	40	55
	2-Axle Trucks (percentage of total)	4.55%	48	2	1	3	1	2	3
	3-Axle Trucks (percentage of total)	4.18%	44	2	1	3	1	2	3
	4-Axle Trucks (percentage of total)	17.05%	177	8	2	10	4	9	13
	Total		1,037	46	14	60	21	53	74
Building 2		184.6	Vehicle Trip Generation Rates (Trips per 1,000 Square Feet of Gross Floor Area)						
	High Cube Cold Storage Warehouse (comprises 20% of building; ITE land use category 157)		2.12	0.08	0.03	0.11	0.03	0.09	0.12
			Total Vehicle Trip Generation						
			392	16	5	21	7	16	23

Land Use		Gross Floor Area	Daily	AM Peak Hour of Adjacent Street Traffic			PM Peak Hour of Adjacent Street Traffic		
		Mode Share	Project Trip Generation by Vehicle Type						
	Passenger Cars (percentage of total)	74.22%	291	12	3	15	5	12	17
	2-Axle Trucks (percentage of total)	4.55%	18	1	1	2	1	1	2
	3-Axle Trucks (percentage of total)	4.18%	17	1	1	2	1	1	2
	4-Axle Trucks (percentage of total)	17.05%	67	3	1	4	1	3	4
	Total		1,459	65	20	85	31	74	105
	Combined Total Project Trips								
		Mode Share	Combined Total Project Trip Generation by Vehicle Type						
	Passenger Cars (percentage of total)	74.22%	1,059	46	13	59	20	52	72
	2-Axle Trucks (percentage of total)	4.55%	66	3	2	5	2	3	5
	3-Axle Trucks (percentage of total)	4.18%	61	3	2	5	2	3	5
	4-Axle Trucks (percentage of total)	17.05%	244	11	3	14	5	12	17
	Total Combined Project Vehicle Trips		1,430	63	20	83	29	70	99

Key:

ITE = Institute of Transportation Engineers

Trip Distribution and Assignment

The project trip distribution in **Table 4.17-1** represents the most likely travel routes for Project site accessibility. The project distribution patterns were estimated based on major commute routes, truck routes, freight haul corridors, and concentrations of residential and commercial employment centers. Truck trip distribution patterns were specifically determined based on the City of Bakersfield truck route map.

Future Year Traffic Volumes

The cumulative conditions scenario reflects regional growth in traffic up to the year 2046. The growth in traffic is provided from Kern COG model projections. The model includes planned and approved regional improvements which result in traffic diverting to new routes with more capacity. The 2046 model network includes future improvements consistent with the Regional Transportation Improvement Program (RTIP), representing, at a minimum, the fiscally constrained capital improvements projects identified in the RTP.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identifies the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on traffic and transportation.

A project would normally be considered to have a significant impact if it does the following:

- Conflicts with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities
- Conflicts or is inconsistent with CEQA Guidelines § 15064.3 (b)
- Substantially increases hazards due to a design feature (for example, sharp curves or dangerous intersections) or incompatible uses
- Results in inadequate emergency access

Impact 4.17-1: The Project would conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities.

The Project is located within the metropolitan plan area of Kern County where the service goal for roadway facilities is LOS “C”. Per the MBGP, streets where existing LOS is below “C”, requires special consideration for mitigation measures to prevent or delay degradation of the existing LOS. To determine MBGP consistency relating to intersection and roadway LOS, the Traffic Study provides an analysis of the operations of the existing and future street system with the addition of traffic associated with the Project. The operational analysis includes LOS analysis for peak-hour intersection and daily roadway operations, as well as queueing and signal warrant evaluation. The analysis within the Traffic Study also identifies potential LOS or geometric deficiencies related to the Project.

Existing Level of Service (2023)

Table 4.17-2 provides the LOS requirements for signalized intersections by control delay in seconds per vehicle, as provided in the HCM 6 Chapter 19. **Table 4.17-3** provides service for a two-way stop controlled or side-street stop-controlled intersection which is determined by the control delay in seconds per vehicle of the minor-street movement (or shared movement) with the worst LOS. As illustrated, according to the MBGP, an acceptable wait time at a signalized or control stop intersection is less than 25 seconds per vehicle.

Table 4.17-2: Level of Service Criteria for Signalized Intersections

Control Delay (seconds/vehicle)	LOS by Volume-to-Capacity Ratio ¹	
	Volume/Capacity Ratio ≤ 0.99	Volume Capacity Ratio < 1.0
≤ 10	A	F
$> 10-15$	B	F
$> 15-25$	C	F
$> 25-35$	D	F
$> 35-50$	E	F
> 50	F	F

Source: Traffic Study (Appendix J)

¹For approach-based and intersection-wide assessments, LOS is defined solely by control delay (HCM 6 Exhibit 19-8)**Key:**

LOS = level of service

Table 4.17-3: Level of Service Criteria for Stop Controlled Intersections

Control Delay (seconds/vehicle)	LOS by Volume-to-Capacity Ratio ¹	
	Volume/Capacity Ratio ≤ 1.0	Volume Capacity Ratio > 1.0
0-10	A	F
$> 10-15$	B	F
$> 15-25$	C	F
$> 25-35$	D	F
$> 35-50$	E	F
> 50	F	F

Source: Traffic Study (Appendix J)

¹For approaches and intersection wide assessment, LOS is defined solely by control delay (HCM 6 Exhibit 20-1)**Notes:** The LOS criteria apply to each lane on a given approach and to each approach on the minor street. LOS is not calculated for the uncontrolled major-street approaches or for the intersection as a whole**Key:**

LOS = level of service

To determine existing LOS for the intersections within the study area, the study considered existing intersection geometrics and existing AM and PM peak-hour traffic counts for the signalized and stop controlled intersections. Based on the traffic counts at the 14 intersections included in the study area, the delay ranged between 8.7 and 57.0 seconds during AM peak hour and 8.7 and 70.3 seconds during PM peak hours, respectively. The intersection that experienced the greatest delay during both AM and PM peak hours is the Golden State Highway SB ramps and 7th Standard Road, where the AM peak-hour delay was 57.0 seconds, and the PM peak hour was 70.3 seconds. **Table 4.17-4** provides the full range of control delay per intersection and their associated determined LOS, based on existing conditions.

Table 4.17-4: Intersection Level of Service for Existing (2023) Conditions

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
Airport Drive and Boughton Drive/West Day Ave	TS	15.7	B	15.5	B
Airport Drive/Norris Road	TS	32.4	C	26.8	C
Airport Drive/Olive Drive/Decatur Street	TS	26.6	C	30.1	C
Airport Drive/Roberts Lane	TS	34.9	C	34.4	C
Airport Drive/State Road/ SR 99 NB Off-ramp	TS	14.2	B	21.9	C
Olive Drive/Roberts Lane	TS	18.8	B	39.6	D
Olive Drive/State Road	TS	27.5	C	19.2	B
State Road/SR 99 NB ramps	SSSC	12.7	B	16.8	C
Olive Drive/SR 99 SB ramps	SSSC	24.9	C	45.5	E
Golden State Highway SB ramps/7th Standard Road	TS	57.0	E	70.3	E
SR 99 Connector to Highway 65/Merle Haggard Drive	TS	24.4	C	33.4	C
Merle Haggard Drive/Wings Way	TS	12.4	B	18.1	B
Airport Drive/Merle Haggard Drive	TS	19.3	B	29.1	C
Boughton Drive/Hanger Way	SSSC	8.7	A	8.7	A

Source: Traffic Study (Appendix J)

Key:

Delay = seconds per vehicle

LOS = level of service

SSSC = side-street stop-controlled

TS = traffic-signal controlled

Based on LOS criteria and peak-hour traffic counts, the operation analysis determined existing traffic at study area intersections operates either at or below acceptable levels of the MBGP. Of the fourteen intersections analyzed, three intersections are currently operating below acceptable levels; at PM peak hour, the intersection of Olive Drive at Roberts Lane operates at a LOS D, Olive Drive at SR 99 southbound (SB) ramps operates at LOS E, and the Golden State Highway SB ramps at 7th Standard Road operates at level E for both AM and PM peak hours.

Opening Year Conditions with Project

To determine the LOS with the Project traffic by year 2025, the study compares the opening-year conditions (2025) to opening-year conditions with the Project traffic. The opening-year scenario is composed of ambient growth in traffic (traffic generated by development in the area up to the year 2025) with a growth rate of 3.5% annually. To determine the LOS of opening year plus the Project, the scenario adds the Project's estimated traffic generation at buildout year 2025. **.17-5** compares opening-year LOS with opening-year-plus-Project LOS.

Table 4.17-5: Intersection Level of Service for Opening Year and Opening Year Plus Project

Intersection	Control Type	Opening Year Conditions				Opening Year plus Project			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Airport Drive and Boughton Drive/West Day Avenue	TS	16.7	B	16.3	B	15.4	B	14.5	B
Airport Drive/Norris Road	TS	36.9	D	30.1	C	36.6	D	30.1	C
Airport Drive/Olive Drive/Decatur Street	TS	28.2	C	33.1	C	30.5	C	36.1	D
Mitigation: convert eastbound and westbound through lane to shared left-through lane and split phase east-west		N/A				31.6	C	34.2	C
Airport Drive/Roberts Lane	TS	39.0	D	38.5	D	39.0	D	38.8	D
Airport Drive/State Road/SR 99 NB off-ramp	TS	14.5	B	23.2	C	14.8	B	23.4	C
Olive Drive/Roberts Lane	TS	19.7	B	47.8	D	19.9	B	50.0	D
Olive Drive/State Road	TS	40.2	D	20.1	C	47.4	D	20.4	C
State Road/SR 99 NB ramps	SSSC	13.2	B	17.9	C	13.2	B	18.5	C
Olive Drive/SR 99 SB	SSSC	27.6	D	54.3	F	29.3	D	57.2	F
Golden State Highway SB ramps/7th Standard Road	TS	62.9	E	81.7	F	68.1	E	84.0	F
SR 99 Connector to Highway 65/Merle	TS	25.7	C	37.0	D	26.2	C	38.2	D
Merle Haggard Drive/Wings Way	TS	12.8	B	20.2	C	12.9	B	20.8	C
Airport Drive/Merle Haggard Drive	TS	20.4	C	36.5	D	21.0	C	41.2	D
Boughton Drive/Hanger Way	SSSC	8.7	A	8.7	A	8.7	A	8.7	A

Source: Traffic Study (Appendix J)

Key:

Delay = seconds per vehicle

LOS = level of service

NB = northbound

SB = southbound

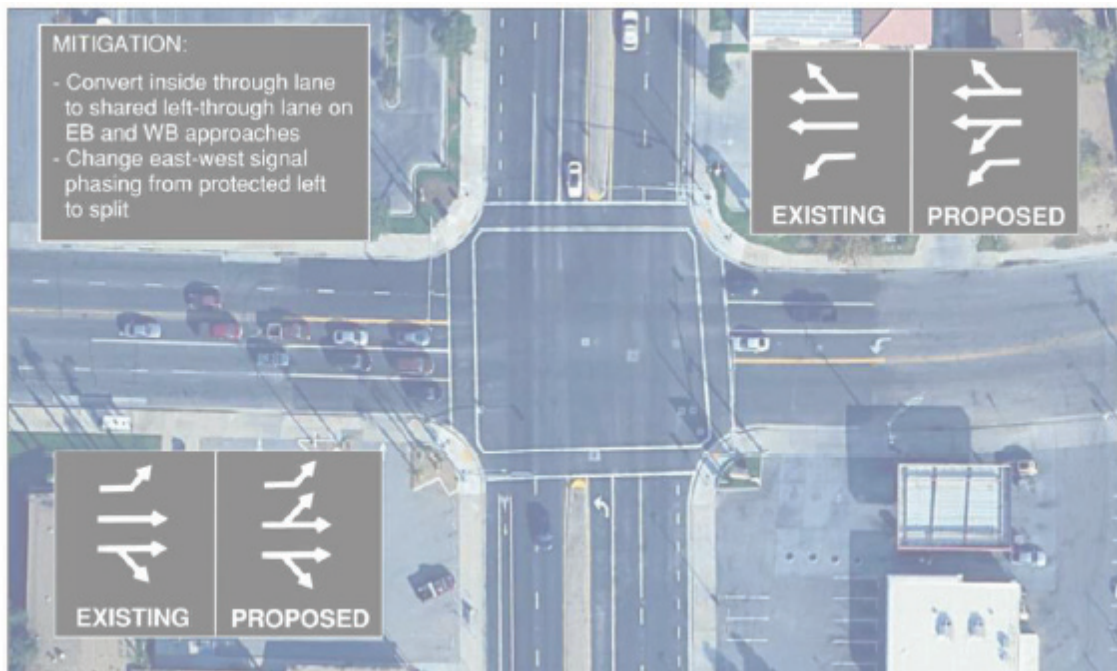
SSSC = side-street stop-controlled

TS = traffic-signal controlled

As shown in **Table 4.17-5** above, the majority of the study intersections operate at LOS D or better during both peak hours, with the exception of Olive Dr at SR 99 SB ramps and Golden State Highway/SB SR 99 off-ramp at 7th Standard Road. The intersection of Olive Drive at State Route 99 Southbound ramps operates at LOS F during the PM peak hour and the intersection of Golden State Highway/SB SR 99 off-ramp at 7th Standard Road operates at LOS E during the AM peak hour and LOS F during the PM peak hour. These intersections are identified as opening year network deficiencies occurring prior to the addition of Project traffic.

Ultimately, the addition of Project generated traffic causes a deficiency in LOS for one intersection when compared to the opening year, under the no project condition. The intersection of Airport Drive/Olive Drive and Decatur Street would change from a LOS C to a LOS D in the PM peak hour with the Project. However, with improvements (illustrated in **Figure 4.17-4**), the intersection would operate at LOS C as required by **Mitigation Measure MM 4.17-1**. Implementation of **MM 4.17-1** would require the project proponent to coordinate with the Kern County Public Works Department by opening year to fully fund and secure road encroachment permits, which would allow for the conversion of the inside eastbound and westbound through lanes to a shared left-through for eastbound and westbound left-turn movements. This would add capacity for turn movements and improve peak-hour LOS.

Figure 4.17-4: Aerial View of Airport Drive/Olive Drive/Decatur Street with Proposed Mitigation



Nonetheless, the addition of Project-generated traffic to the existing traffic at opening year (2025) would cause a deterioration in traffic operations on the existing street system. With the Project, increased congestion from intersection delay would occur at the intersection of Airport Drive/Olive Drive/Decatur Street.

However, without the Project, eight of the studied intersections are expected to operate below LOS C at opening year during commuter peak periods:

- Airport Drive/Norris Road in the AM peak hour
- Airport Drive/Roberts Lane in both the AM and PM peak hours
- Olive Drive/Roberts Lane in the PM peak hour
- Olive Drive/State Road in the AM peak hour
- Olive Drive/SR 99 SB ramps in both the AM and PM peak hours
- Golden State Highway SB ramps/7th Standard Road in both the AM and PM peak hours
- SR 99 Connector to Highway 65/Merle Haggard Dr in the PM peak hour
- Airport Drive/Merle Haggard Drive in the PM peak hour

Off-Site Improvements

To comply with Kern County Public Works Department roadway standards, the Project would include associated roadway improvements. This includes right-of-way dedication on Airport Drive, Boughton Drive, and Hanger Way. In addition to right-of-way dedication, the road would require right-turn channelization and a drive approach of 35 feet with a median along Airport Drive project frontage. Boughton Drive and Hanger Way would require a 45-foot half width collector. While these improvements along the Project boundary would be required by the development and roadway standards, the Traffic Study (Appendix J) concludes that there are no practical improvements toward which new development could contribute funds to improve the LOS at the two intersections that are expected to operate at LOS “F” by 2025. These intersections are Olive Drive and SR 99 ramps and Golden State Highway SB ramps and 7th Standard Road and discussed in detail below.

At the Olive Drive and SR 99 Southbound on- and off-ramps, the intersection is SSSC, where delay is caused by the traffic turning left from the off-ramp and effects 8% of the traffic entering the intersection. Due to the proximity of the off-ramp to the adjacent side street (Knudson Drive), there is insufficient spacing for a traffic signal at the off-ramp without causing unacceptable delays for the traffic traveling along Olive Drive and Knudson Drive. As such, the Traffic Study noted that there are no feasible improvements to satisfy the left-turn movement for a LOS D or better at the intersection of Olive Drive and SR 99 Southbound on- and off-ramps.

Similarly, the intersection of Golden State Highway and SR 99 Southbound off-ramp at 7th Standard Road would require a major reconstruction and potentially widening of the 7th Standard Road railroad and SR 99 overcrossing structures due to several site constraints. This signalized intersection is raised on an abutment as part of the 7th Standard Road overcrossing of the railroad and the Highway 99 overcrossing. The abutment was constructed with stable slopes down to grade level at the right-of-way line on the west and south sides of the intersection.

The addition of lanes on 7th Standard Road could require widening of the railroad overcrossing structure and/or the Highway 99 overcrossing structure in addition to the construction of a substantial amount of retaining walls to replace the current slopes on the west and south sides of the intersection. Similarly, widening of the southbound off-ramp approach to 7th Standard Road or the Golden State Highway approach and departure lanes south of 7th Standard Road would also require construction of a substantial amount of retaining walls.

Since each approach of the Golden State Highway/SR 99 SB Off-ramp/7th Standard Rd operates at a deficient level of service, multiple approaches would require additional capacity to improve the overall intersection to a LOS D or better. Any capacity improvements that would improve the LOS would require a major reconstruction of the intersection including extensive retaining walls and, potentially, the widening of 7th Standard Road railroad and SR 99 overcrossing structures. Therefore, there are no practical improvements in which new development could contribute funds to improve the operation to a LOS C or better at the Golden State Highway/SR 99 SB off ramp and 7th Standard Rd intersection. Additionally, lane widening could contribute to an increase in VMT, which could result in a potentially significant environmental impact.

Table 4.17-6 provides a summary of the traffic signal warrant analysis.

Table 4.17-6: Summary of Traffic Signal Warrant Analysis at the Intersection of Olive Drive and SR 99 SB ramps

Warrant	Warrant Title	Warrant Analysis Findings
1	Eight-Hour Vehicular Volume	This warrant has three volume conditions that may be met to satisfy the warrant. The intersection of Olive Drive and the SR 99 SB ramps does meet Condition A or Condition B at 100% or 80%. The approach volumes for the minor leg are below the threshold. As such, this warrant would not be met.
2	Four-Hour Vehicular Volume	This warrant includes plotting the highest 4 hours on a chart with a minimum threshold volume. The intersection of Olive Drive and the SR 99 SB ramps is identified as rural due to Olive Drive having a posted speed limit of 50 mph. Figure 4C-2 is utilized and only 2 of the 4 hours plotted above the minimum threshold of 60 vehicles per hour. As such, this warrant would not be met.
3	Peak Hour	This warrant includes plotting the peak hour on a chart with a minimum threshold volume. The intersection of Olive Drive and the SR 99 SB ramps is identified as rural due to Olive Drive having a posted speed limit of 50 mph. Figure 4C-4 is utilized and the plot was below the minimum threshold of 75 vehicles per hour. As such, this warrant would not be met.
4	Pedestrian Volume	The intersection of Olive Drive and the SR 99 SB ramps does not have a marked crosswalk crossing the major street (Olive Drive). There is a pedestrian crosswalk crossing the two-lane SR 99 southbound on-ramp from eastbound Olive Drive for pedestrians using the sidewalk on the south side of Olive Drive who are crossing the overpass. The warrant is typically applied to crossing the major or minor street being considered for signalization. This warrant is not applicable to this intersection.
5	School Crossing	The intersection is not a school crossing. This warrant is not applicable.
6	Coordinated Signal System	This warrant is to determine if a signal is installed and coordinated with other adjacent signalized intersections would it improve vehicle

Warrant	Warrant Title	Warrant Analysis Findings
		platooning and the efficiency of traffic movements within a band of green time in the peak direction. Due to the short distance to the adjacent signal at Knudsen Drive (about 220 feet) a signal at the Olive Drive and the SR 99 SB ramps intersection would be difficult to coordinate and likely worsen the ability to generate platoons of vehicles.
7	Crash Experience	According to the Transportation Injury Mapping System, there have been two injury crashes at this intersection between March 17, 2019, and March 17, 2024. While there may be additional property damage only crashes, but based on two crashes this warrant would not be met.
8	Roadway Network	This warrant requires meeting warrants 1, 2, and 3, which it does not. Therefore, this warrant will not be met.
9	Intersection Near a Grade Crossing	This warrant is not applicable to this intersection.

Source: California Manual on Uniform Traffic Control Devices (CA MUTCD), 2014 Edition, Revision 6 (March 30, 2021). Section 4C.01 Studies and Factors for Justifying Traffic Control Signals. Refer to Chapter 8 of Traffic Impact Analysis (Appendix J) for more detailed discussion.

Key:

SB = southbound

Summary

Vehicle Miles Traveled

Senate Bill 743 changed the primary basis of the evaluation of traffic deficiencies in CEQA from LOS to VMT. With CEQA Guidelines Section 15064.3 in effect, the provisions of the statute specifying that automobile delay (as measured by LOS or similar standards) will not be considered a significant impact on the environment govern the analysis of traffic impacts under CEQA. [Pub Res C §21099 (b) (2).]

Level of Service

As noted above, the LOS analysis is presented for information and General Plan consistency and is not a basis for determining significant environmental impact. Specifically, *Citizens for Positive Growth & Preservation v City of Sacramento* (2019) 43 C5th 609, 624 (LOS-based challenge moot in light of enactment of CEQA Guideline 15064.3).

The addition of Project-generated traffic to the future street system would result in the addition of one deficient intersection when compared to no project operations. However, the LOS deficiency is not an adequate threshold to determine a significant environmental impact. In order to improve LOS at deficient intersections adjacent to the Project, **Mitigation Measure MM 4.17-1** would address these deficiencies by allowing for greater capacity for turn-movements. Additionally, **MM 4.17-2** would require the submittal of payment of a fair share fee towards a long-term solution.

Transit, Bike, and Pedestrian Facilities

As noted previously, there are Class II Bike lanes that terminate at two intersections adjacent to the Project site (Airport Drive at West Day Avenue and Airport Drive at Hanger Way/Skyway Drive), per the Kern County ATP (Northeast Area). Additionally, the Project contains five driveways along

Airport Drive, which is identified as containing a Class II Bike lane along the roadway, per the 2012 Bicycle Master Plan. **Mitigation Measure MM 4.17-2** would require the developer to pay the required Transportation Traffic Impact Fees for Metropolitan Bakersfield that would be utilized to provide continuous bikeways and pedestrian paths, identified in the Kern County ATP, in coordination with the Kern County Public Works Department.

The Project is not located along an existing bus route and few bus stops exist on the roadways likely to be used during construction and operation. The Project would have employees stagger at three shifts, as to spread out travel demand. Although the Project would not house residents or employees, the project proponent would be required to implement **Mitigation Measure MM 4.17-3**, which would incentivize alternative means of transportation to further reduce VMT for employees.

Conclusion

Implementation of the Project would reduce the level of service from LOS C to LOS D at the Airport Drive/Olive Drive/Decatur Street intersection, which would render the intersection from an acceptable to unacceptable LOS with the Project in the opening year. However, with **Mitigation Measure MM 4.17-1**, the LOS would remain at an acceptable level and would be consistent with MBGP policy. In regard to active transportation, the Kern County ATP identifies a Class II bike lane opportunity adjacent to the Project. With implementation of **Mitigation Measure MM 4.17-2**, fees would be utilized to ensure continuous bikeways identified in the Kern County ATP. Furthermore, **Mitigation Measure MM 4.17-3** would work to reduce vehicle trips associated with the project by incentivizing alternative modes of transportation and thereby reducing vehicle trips, incidentally, reducing intersection congestion and improving active transportation circulation. With implementation of **Mitigation Measures MM 4.17-1** through **MM 4.17-3**, the Project would not conflict with plans and policies addressing the circulation system. Therefore, impacts would be less than significant.

Mitigation Measures

MM 4.17-1 To improve traffic during operation of the project, the following traffic improvements shall be constructed at the intersection of Airport Drive/Olive Drive/Decatur Street prior to the buildout year of opening day; costs shall be funded entirely by the project proponent and at no cost to either the County of Kern or the California Department of Transportation (Caltrans):

- a. Convert the inside eastbound and westbound through lanes to shared left-through lanes to provide two lanes for the eastbound and westbound left turn movements.
- b. Implement split phased signal operation to all the separation of traffic movements in the eastbound and westbound direction.
- c. Implement a split phasing scheme that re-optimizes the intersection timing including increasing the cycle length to 140 seconds in both the AM and PM peak hours.

Prior to final occupancy, the project proponent shall complete the following:

- a. Record an irrevocable offer of dedication to the County of Kern of all subject frontage along:
 1. Airport Drive, 55 feet in width, and additional right-of-way for right turn channelization, per the Kern County Land Division Ordinance, and Development Standards
 2. Boughton Drive, 55 feet in width, and additional right-of-way for right turn channelization, per the Kern County Land Division Ordinance, and Development Standards
 3. Hangar Way, 45 feet in width, and additional right-of-way for right turn channelization, per the Kern County Land Division Ordinance, and Development Standards
- b. Under street improvement plans submitted for review and approval by the Kern County Public Works Department:
 1. Construct Airport Drive project frontage to “Type A” Subdivision Standard, half width Arterial Street, and right turn lane (Plate R-40), per the Kern County Development Standards and the Land Division Ordinance. These improvements shall be, but not limited to: curb, gutter, sidewalk, wheelchair ramps, asphalt concrete, and the necessary tie-ins.
 2. Construct Type B1 curb (Plate R-52), raised median curb along the Airport Drive project frontage, from Boughton Drive to Skyway Drive, per the Kern County Development Standards and Land Division Ordinance.
 3. Construct Boughton Drive project frontage to “Type A” Subdivision Standard, half width Arterial Street, and right turn lane (Plate R-40), per the Kern County Development Standards and the Land Division Ordinance. These improvements shall be, but not limited to: curb, gutter, sidewalk, wheelchair ramps, asphalt concrete, and the necessary tie-ins.
 4. Construct Hangar Way project frontage to “Type A” Subdivision Standard, half width Collector Street, and right turn lane (Plate R-40), per the Kern County Development Standards and the Land Division Ordinance. These improvements shall be, but not limited to: curb, gutter, sidewalk, wheelchair ramps, asphalt concrete, and the necessary tie-ins.
 5. Construct a traffic signal at the intersection of Airport Drive and Park Meadows Avenue in accordance with Kern County Development Standards and Land Division Ordinance.
 6. Include a striping plan and streetlight plan

- c. Provide a 20-foot by 20-foot right of way corner cutoff at all intersections.
- d. All employee drive approaches shall conform to Plate R-58, widths to be determined in consultation with Kern County Public Works Department and per the Kern County Development Standards and the Land Division Ordinance.
- e. All truck drive approaches shall conform to Plat eR-58, widths to be determined in consultation with Kern County Public Works Department and per the Kern County Development Standards and the Land Division Ordinance.
- f. All easements shall be kept open, clear, and free from buildings and structures of any kind pursuant to Chapters 18.50 and 18.55 of the Kern County Land Division Ordinance. All obstructions, including utility poles and lines, trees, pole signs, fences, or similar obstructions, shall be removed from the ultimate road right-of-way. Compliance with this requirement is the responsibility of the applicant and may result in significant expenditures.

MM 4.17-2 Prior to the issuance of any building permit within Metropolitan Bakersfield, the project proponent shall pay the required Transportation Traffic Impact fees.

MM 4.17-3 Prior to the issuance of a Certificate of Occupancy for any tenant(s), the project proponent shall coordinate with the tenant(s) to prepare a Transportation Demand Management program to reduce Vehicle Miles Travelled associated with employee trips and submit a copy to the Planning and Natural Resources Department to be kept on file. The program shall include Transportation Demand Management measures that would individually reduce the proposed project's Vehicle Miles Traveled and trips, with the goal of obtaining a Vehicle Miles Traveled reduction to lessen the proposed project's Vehicle Miles Traveled impact. The following Transportation Demand Management measures would be implemented by the proposed project as part of the Transportation Demand Management program:

- a. Alternative-Mode Subsidies and Incentives: provide subsidization of transit fares, carpool, or electric vanpool for employees of the project site. Provide monetary incentives for alternate modes of transportation.
- b. Travel Behavior Change Program: Provide a web site that allows employees to research other modes of transportation for commuting to the site.
- c. Promotions and Marketing: Provide marketing and promotional tools to educate and inform travelers about site-specific transportation options and the effects of their travel choices with passive educational and promotional materials.
- d. Commute Assistance Center: Provide a computer kiosk that allows employees to research other modes of transportation for commuting.

- e. Preferential Carpool/Vanpool Parking Spaces: Provide reserved carpool/vanpool spaces closer to the building entrance.
- f. Passenger Loading Zones: Provide passenger loading zones for easy access to carpools or vanpools.
- g. Bike Share: Implement bike share to allow people to have on-demand access to a bicycle, as needed.
- h. Bike Parking and Facilities: Include secure bike parking and showers to provide additional end-of-trip bicycle facilities to support safe and comfortable bicycle travel. Provide on-site bicycle repair tools and space to use them supports ongoing use of bicycles for transportation.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.17-1** through **MM 4.17-3** would be required.

Level of Significance

With implementation of **Mitigation Measures MM 4.17-1** through **MM 4.17-3**, impacts would be less than significant.

Impact 4.17-2: The Project would conflict or be inconsistent with CEQA Guidelines § 15064.3 (b).

The Project consists of two warehouse buildings with a total area of 923,130 square feet. The primary function is a distribution and logistics facility that would require modifications to the interior design for the final user. All interior modifications would require a tenant improvement permit that will be subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.). Outdoor storage is not proposed as part of this project.

Trip generation rates for High Cube Warehouse, as described above, predict a total of 1,430 vehicle trips per day, with 83 vehicle trips in the AM peak hour, and 99 vehicle trips in the PM peak hour. The trip generation for the Project exceeds OPR's threshold of 110 daily trips. As a result, the Project is not screened from conducting a VMT analysis based on this criterion. As of 2024, the Kern County Public Works Department - Traffic Division has not finalized or adopted any policies or thresholds for VMT analysis; therefore, the OPR Technical Advisory is used as the basis for this evaluation per the Traffic Study (Appendix J).

For nonresidential development (except retail) OPR recommends a threshold of significance at 15% below the baseline metric of countywide VMT per employee. While no specific recommendations are provided for industrial land use, the trip-making characteristics of warehousing are very similar to those of office buildings where most of the passenger vehicle trips are generated by employees. Therefore, the focus of per employee evaluation is the home-based work trip per employee.

As discussed above, the Kern COG regional transportation model is used to estimate countywide metrics for home-based work VMT per employee. The current model baseline year is 2020, and the cumulative future year is 2046. Based on Kern COG, the average countywide VMT per employee is 37.58 in 2020, and 35.40 in 2046. This translates to a total of 11,327,204 home to work VMT per employee in 2020 and 12,706,296 home to work VMT per employee in 2046 for office uses.

Based on the Traffic Study, the Kern COG model estimates that a total of 444 employees (conversion from building floor area to employees per the Southern California Association of Governments Employment Density Study Summary Report) would generate about 7,280 home-based work daily VMT in baseline conditions. This results in a metric of 16.40 home-based work VMT per employee, which is approximately half of the significance threshold of 31.94 VMT per employee countywide, as seen below in **Table 4.17-7**. It is important to note that while the home to work VMT is recommended for office use, the source for the number of employees utilized a warehousing conversion of 2,111 square feet per employee. This conversion captures the intensive truck trips associated with warehousing projects, per the Southern California Association of Governments Employment Density Study Summary Report (Appendix J).

As seen in the table below, 2046 future conditions indicate a lower home-based work trip per employee. This is to be expected as the Project-generated VMT would reduce slightly to reflect the maturation of development within the Project area, providing opportunities for employees to reside closer to the workplace. In 2046, the VMT per employee is anticipated to reduce to a total of 14.88 VMT per employee, which is less than 50% of the 31.94 VMT per employee significance threshold.

Table 4.17-7: Comparison of Project Generated Home-Based Work VMT Per Employee

Year	Home to Work Project Generated VMT ¹	Project Employment ²	Project VMT Per Employee	Significance Threshold (VMT Per Employee) ³	Exceed Significance Threshold?
2020	7,280	444	16.40	31.94	No
2046	6,605	444	14.88		No

Source: Traffic Study (Appendix J)

¹ Daily project VMT for home to work trip purpose (2020 and 2046) is from Kern COG.

² Source of conversion from building floor area to employees: Southern California Association of Governments (SCAG) Employment Density Study Summary Report, October 31, 2001. Table 7A (Derivation of Square Feet per Employee Based on Median Employees Per Acre and Median Floor Area Ratio (FAR) in San Bernardino County). For warehousing, the conversion is 2,111 square feet per employee.

³ Significance Threshold (85% of countywide baseline VMT/Employee) is based on the recommendations in the California Office of Planning and Research (OPR) Technical Advisory (Dec. 2018). This study used OPR's threshold recommendation for office land uses which is based on employee commute trips and very similar to industrial land uses. The OPR recommended significance threshold requires that project-generated VMT/Employee not exceed 15% less than countywide average baseline home-to-work-based VMT/employee metric.

Key:

VMT = vehicle miles traveled

Conclusion

The VMT analysis determined that the Project generated home-based work VMT per employee is less than the significance threshold for both baseline conditions (2020) and future cumulative conditions (2046). Nonetheless, implementation of **Mitigation Measure MM 4.17-3** will ensure further reduction of VMT associated with employee trips. Therefore, the Project has a less than significant VMT impact.

Mitigation Measures

Implement Mitigation Measure MM 4.17-3 Level of Significance

With implementation of **Mitigation Measure MM 4.17-3**, impacts would be less than significant.

Impact 4.17-3: The project would substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

The Project site is described as having a flat topography, with no elevations that would obstruct views if sharp curves were within the Project area. Additionally, there are no incompatible uses within the Project vicinity. However, the introduction of construction-related traffic would have the potential to increase accident rates and could result in significant impacts. The delivery of heavy construction equipment may require transport by oversize vehicles using area roadways. The delivery of heavy equipment would be hauled in and out of the Project site on an as-needed basis. These deliveries and use of oversize vehicles during construction can create a hazard to the public by limiting motorist views on roadways and creating obstructions, which is considered a potentially significant impact. With implementation of **Mitigation Measure MM 4.17-4**, as listed below, it would be required that information be provided regarding any movement of oversized/overweight vehicles that would require transport over publicly maintained State or County roads. Additionally, the project proponent shall provide a Construction Traffic Control Plan for Kern County and Caltrans approval. In addition to mitigation, the Project contains associated roadway improvements along Airport Drive, Boughton Drive, and Hanger Way that include medians along Project frontage, right-turn channelization, and increased width of collector streets along the frontage of the Project. These improvements would create enhanced design features along the Project frontage.

Once operational, the Project will operate as a distribution and logistics facility. The final end user may require modifications to the interior of the building to accommodate specialized storage and handling equipment for the goods and materials that may include but are not limited to finished products, consumer goods, parts, materials, tires, tools, etc. typically found in a modern distribution/logistics facility. Any modification to the interior of the building will require a tenant improvement permit that is subject to plan check review and require issuance of a building permit to ensure compliance with applicable codes (i.e. Building Code, Fire Code, Plumbing Code, etc.). Outdoor storage is not proposed as part of this project. As such, impacts regarding substantially increasing hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment) are not expected based on any specific product stored on-

site and entirely within the proposed warehouse. Regardless, Kern County is requiring **Mitigation Measure MM 4.17-4**.

Mitigation Measures

MM 4.17-4 Prior to the issuance of construction or building permits, the project proponent/operator shall:

- a. Prepare and submit a Construction Traffic Control Plan to Kern County Public Works Department – Traffic Division and the California Department of Transportation offices for District 6, as appropriate, for approval. The Construction Traffic Control Plan must be prepared in accordance with both the California Department of Transportation Manual on Uniform Traffic Control Devices and Work Area Traffic Control Handbook and must address, at a minimum, the following issues:
 1. Timing of deliveries of heavy equipment and building materials;
 2. Directing construction traffic with a flag person;
 3. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic;
 4. Ensuring access for emergency vehicles to the project sites;
 5. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections;
 6. Maintaining access to adjacent property; and,
 7. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak hours.
 8. Consult with the County to develop coordinated plans that would address construction-related vehicle routing and detours adjacent to the construction area for the duration of construction overlapping with neighboring projects. Key coordination meetings would be held jointly between applicants and contractors of other projects for which the County determines impacts may overlap.
- b. Obtain all necessary encroachment permits for the work within the road right-of-way or use of oversized/overweight vehicles that will utilize county maintained roads, which may require California Highway Patrol or a pilot car escort. Copies of the approved traffic plan and issued permits shall be submitted to the Kern County Planning and Natural Resources Department, the Kern County Public Works Department-Traffic Division, and Caltrans.

- c. Enter into a secured agreement with Kern County to ensure that any County roads that are demonstrably damaged by project-related activities are promptly repaired and, if necessary, paved, slurry-sealed, or reconstructed as per requirements of the State and/or Kern County.
- d. Submit documentation that identifies the roads to be used during construction. The project proponent/operator shall be responsible for repairing any damage to county and non-county maintained roads that demonstrably result from construction activities. The project proponent/operator shall submit a pre-construction video log and inspection report regarding roadway conditions for roads used during construction to the Kern County Public Work Department-Traffic Division and the Kern County Planning and Natural Resources Department.
- e. Within 30 days of completion of construction, the project proponent/operator shall submit a post-construction video log and inspection report to the County. This information shall be submitted in electronic format on USB. The County, in consultation with the project proponent/operator's engineer, shall determine project responsibility for the damage and the extent of remediation required, if any.

Mitigation Measure

Implementation of Mitigation Measure MM 4.17-4 would be required.

Level of Significance after Mitigation

With implementation of **Mitigation Measure MM 4.17-4**, impacts would be less than significant.

Impact 4.17-4: The project would result in inadequate emergency access.

The Project would generate construction trips, including the movement of oversize equipment, and the potential for roadway lane closures during construction. These factors could temporarily increase the daily traffic volumes on surrounding local roadways and at intersections. It is anticipated that emergency access would be maintained at all times, and appropriate detours would be provided, as necessary.

While the project would not require closures of public roads beyond the construction phase, which could inhibit access by emergency vehicles, heavy construction-related traffic could have the potential to interfere with emergency response or emergency evacuation procedures in the event of an emergency, such as a wildfire or a chemical spill. Heavy construction-related traffic could also interfere with emergency response to other uses in the vicinity and, therefore, could represent a significant impact.

To ensure emergency access during construction, **Mitigation Measure MM 4.17-4** requires the preparation of a Construction Traffic Control Plan and includes assurance of access for emergency vehicles and would therefore reduce potential impacts to less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.17-4** would be required.

Level of Significance after Mitigation

With implementation of **Mitigation Measure MM 4.17-4**, impacts would be less than significant.

4.17.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Impacts of the Project would be considered cumulatively considerable if they would have the potential to combine with other past, present, or reasonably foreseeable projects to become significant. The potential for cumulative construction impacts exists where there are multiple projects proposed in an area with overlapping construction schedules that could affect similar resources. Cumulative operational impacts exist where multiple projects result in significant and unavoidable impacts to the same surrounding intersections and roadways.

Cumulative conditions represent regional growth in traffic up to the year 2046. Growth in traffic is from forecasts from the Kern COG model projections. The Kern COG 2046 model includes planned and approved regional improvements which result in traffic diverting to new routes with more capacity. These improvements are consistent with the RTP, representing, at a minimum, the fiscally constrained capital improvement projects identified in the RTP.

Consistency with Programs, Plans, and Policies

As a result of regional and local improvements to the road and highway network, some intersections under cumulative conditions experience better levels of service when compared to opening year conditions, as traffic diffuses throughout a more connected network and diverts to areas with increased capacity. However, as illustrated in **Table 4.17-8**, some intersections are anticipated to operate at below acceptable levels of operation, even with cumulative roadway improvements. Airport Drive at Norris Road, Airport Drive at Roberts Lane, Olive Drive at Roberts Lane, Olive Drive at SR 99 SB ramps and Golden State Highway SB ramps at 7th Standard Road, are all anticipated to operate at a LOS below acceptable levels, per the MBGP, and are identified as cumulative deficiencies occurring prior to the addition of the project.

Table 4.17-8: Intersection Level of Service for Cumulative Conditions

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
Airport Drive and Boughton Drive/West Day Avenue	TS	15.0	B	18.9	B
Airport Drive/Norris Road	TS	25.6	C	40.4	D
Airport Drive/Olive Drive/Decatur Street	TS	25.2	C	29.9	C
Airport Drive/Roberts Lane	TS	38.7	D	43.9	D

Intersection	Control Type	AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS
Airport Drive/State Road/SR 99 NB off-ramp	TS	14.4	B	20.5	C
Olive Drive/Roberts Lane	TS	18.6	B	43.8	D
Olive Drive/State Road	TS	12.3	B	19.0	B
State Road/SR 99 NB ramps	SSSC	14.1	B	17.0	C
Olive Drive/SR 99 SB ramps	SSSC	23.9	C	40.2	E
Golden State Highway SB ramps/7th Standard Road	TS	55.0	E	59.5	E
SR 99 Connector to Highway 65/Merle Haggard Drive	TS	25.1	C	33.0	C
Merle Haggard Drive/Wings Way	TS	12.8	B	17.5	B
Airport Drive/Merle Haggard Drive	TS	18.9	B	24.2	C
Boughton Drive/Hanger Way	SSSC	9.0	A	9.0	A

Source: Traffic Study (Appendix J)

Key:

Delay = seconds per vehicle

NB = northbound

SSSC = side-street stop-controlled

TS = traffic-signal controlled

As illustrated in **Table 4.17-9**, the addition of the Project to cumulative projects does not create a reduction in LOS at any intersections. With and without the project, it is anticipated that there would be five deficient intersections. The deficient intersection of Olive Drive and the SR 99 SB ramps does not meet signal installation Warrant #3 (Peak Hour) from the California Manual on Uniform Traffic Control Devices (CA MUTCD) in Cumulative Plus Project conditions. Other design and safety related factors were considered in determining feasible measures for improving the level of service deficiency at this intersection. **Mitigation Measure 4.17-2** would ensure LOS remain at an acceptable level at the intersection of Airport Drive/Olive Drive/Decatur Street.

Table 4.17-9: Comparison of Cumulative and Cumulative Plus Project Level of Service

Intersection	Control Type	Cumulative Conditions				Cumulative plus Project Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Airport Drive and Boughton Drive/West Day Ave	TS	15.0	B	18.9	B	13.0	B	16.1	B
Airport Drive/Norris Road	TS	25.6	C	40.4	D	25.5	C	40.5	D
Airport Drive/Olive Drive/Decatur Street	TS	25.2	C	29.9	C	26.6	C	32.0	C

Intersection	Control Type	Cumulative Conditions				Cumulative plus Project Conditions			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS
Mitigation: convert eastbound and westbound through lane to shared left-through lane and split phase east-west approaches left-through lane						27.8	C	34.3	C
Airport Drive/Roberts Lane	TS	38.7	D	43.9	D	38.7	D	44.5	D
Airport Drive/State Road/SR 99 NB Off-ramp	TS	14.4	B	20.5	C	14.7	B	20.7	C
Olive Drive/Roberts Lane	TS	18.6	B	43.8	D	18.7	B	45.4	D
Olive Drive/State Road	TS	12.3	B	19.0	B	12.7	B	19.2	B
State Road/SR 99 NB ramps	SSSC	14.1	B	17.0	C	14.2	B	17.4	C
Olive Drive/SR 99 SB ramps	SSSC	23.9	C	40.2	E	24.8	C	41.6	E
Golden State Highway SB ramps/7th Standard Road	TS	55.0	E	59.5	E	55.8	E	61.2	E
SR 99 Connector to Highway 65/Merle Haggard Drive	TS	25.1	C	33.0	C	25.6	C	33.8	C
Merle Haggard Drive/Wings Way	TS	12.8	B	17.5	B	12.9	B	17.9	B
Airport Drive/Merle Haggard Drive	TS	18.9	B	24.2	C	19.4	B	27.3	C
Boughton Drive/Hanger Way	SSSC	9.0	A	9.0	A	9.0	A	8.9	A

Source: Traffic Study (Appendix J)

Key:

Delay = seconds per vehicle

LOS = level of service

SSSC = side-street stop-controlled

TS = traffic-signal controlled

Guidelines Section 15064.3(b) Consistency

Implementation of the Project would generate 7,280 home-based-work VMT in baseline conditions, and 6,605 home-based-work VMT by 2046. This project-generated VMT reduces slightly in the future reflecting the maturation of development in the vicinity of the Project. By 2046, VMT drops to 14.88 VMT per employee, nearly half of the significance threshold of 31.94. The Project would have a less than cumulatively considerable impact.

Geometric Design Features/Emergency Access

Cumulative projects surrounding the Project that would occur at the same time as the Project's construction would also be required to evaluate geometric hazards; therefore, cumulative impacts related to geometric hazards would be less than significant. The analysis above also evaluated geometric hazards generated by project improvements and found that, with implementation of the existing regulatory requirements and **Mitigation Measure MM 4.17-4**, which implements a Construction Traffic Control Plan. This would ensure that the Project does not significantly impact traffic during construction. Emergency access to the site is generally an impact contained at the site; therefore, the Project would not have a cumulative impact to the cumulative projects in the area. Regardless, the cumulative projects would also be required to evaluate cumulative impacts regarding site access for emergency vehicles.

Summary

Intersection and roadway improvements to maintain or improve the operational LOS of the street system in the vicinity of the Project would be implemented by the Project associated improvements, as outlined in **Mitigation Measure MM 4.17-1**, and through regional improvement funded through mitigation measures. **MM 4.17-2** would ensure appropriate funds for capital improvement projects to be constructed and maintained by Kern County Public Works Department – Traffic Division. Implementation of **Mitigation Measure MM 4.17-3** would require the incentivization of operational employees to utilize alternative methods of transportation to the site, thereby reducing VMT and incidentally, vehicle trips to and surrounding the site. Additionally, **Mitigation Measure MM 4.17-4** would reduce the potential for Project-related accidents during construction by requiring a Construction Traffic Control Plan be approved prior to construction. These mitigation measures and associated roadway improvements would reduce impacts to less than significant for conflicts with the MBGP, public transit and active transportation planning, and roadway hazards through the year 2046. Cumulative impacts to traffic and transportation would be reduced to less than significant with mitigation.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.17-1** through **MM 4.17-4** would be required.

Level of Significance after Mitigation

With implementation of **MM 4.17-1** through **MM 4.17-4**, cumulative impacts would be less than significant.

Section 4.18

Tribal Cultural Resources

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Section 4.18

Tribal Cultural Resources

4.18.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding tribal cultural resources. It also evaluates impacts on tribal cultural resources that could result from implementation of the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary. This section is informed by the August 2023 Native American consultation conducted by the 2024 Phase I Historical/Archaeological Resources Survey and the 2023 Paleontological Resources Assessment Report, both prepared by CRM Tech (Appendix D) and Kern County (County) to comply with Assembly Bill 52 (AB 52) (Appendix K.1 through K.5).

Tribal Cultural Resource Terminology

As explained in Section 4.5, *Cultural Resources*, historical resources can include areas determined to be important to Native Americans, such as sacred sites. Sacred sites are most often important to Native American groups because of the role of the location in traditional ceremonies or activities. “Cultural resources” generally refer to pre-Contact and post-Contact (historic) archaeological sites and the built environment. Cultural resources can also include areas determined to be important to Native Americans.

As provided in Section 4.5, *Cultural Resources*, the following definitions of key tribal cultural resources terms used in this section are below:

- **Archaeological Site:** A site is defined by the National Register of Historic Places as the place or places where the remnants of a past culture survive in a physical context that allows for the interpretation of these remains. Archaeological remains usually take the form of artifacts (e.g., fragments of tools, vestiges of utilitarian, or non-utilitarian objects), features (e.g., remnants of walls, cooking hearths, or midden deposits), and ecological evidence (e.g., pollen remaining from plants that were in the area when the activities occurred). **Pre-Contact archaeological sites** generally represent the material remains of Native American groups and their activities dating to the period before European contact (the Contact period). In some cases, pre-Contact sites may contain evidence of trade contact with Europeans. **Ethnohistoric archaeological sites** are defined as Native American settlements occupied after the arrival of European settlers in California. **Historic archaeological sites** reflect the activities of nonnative populations in the period after initial European contact (the post-Contact period, also known as the historic period).
- **Artifact:** An object that has been made, modified, or used by a human being
- **Cultural Resource:** A cultural resource is a location of human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. Cultural

resources include archaeological resources and built environment resources (sometimes known as historic architectural resources), and may include sites, structures, buildings, objects, artifacts, works of art, architecture, and natural features that were important in past human events. They may consist of physical remains or areas where significant human events occurred, even though evidence of the events no longer remains. Cultural resources also include places that are considered to be of traditional cultural or religious importance to social or cultural groups.

- **Cultural Resources Study Area:** All areas within the project site boundary plus a 1-mile buffer
- **Cultural Resources Survey Area:** All areas of potential permanent and temporary impacts for a reasonable worst-case development within the project site, plus a 60-foot buffer to account for secondary or unanticipated impacts
- **Ethnographic:** Relating to the study of human cultures. “Ethnographic resources” represent the heritage resource of a particular ethnic or cultural group, such as Native Americans or African, European, Latino, or Asian immigrants. They may include traditional resource-collecting areas, ceremonial sites, value-imbued landscape features, cemeteries, shrines, or ethnic neighborhoods and structures.
- **Historic period:** The period that begins with the arrival of the first nonnative population and thus varies by area. In 1772, Commander Don Pedro Fages was the first European man to enter Kern County, initiating the historic period in the Project study area.
- **Historical resource:** This term is used for the purposes of the California Environmental Quality Act (CEQA) and is defined in the CEQA Guidelines (§15064.5) as: (1) a resource listed in or determined to be eligible for listing in the California Register of Historical Resources (CRHR); (2) a resource included in a local register of historical resources, as defined in Public Resources Code (PRC) §5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC §5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.
- **Isolate:** An isolated artifact or small group of artifacts that appear to reflect a single event, loci, or activity. It may lack identifiable context but has the potential to add important information about a region, culture, or person. Isolates are not considered under CEQA to be significant and, thus, do not require avoidance mitigation (CEQA Statute §21083.2 and CEQA Guidelines §15064.5). However, all isolates located during the field effort are recorded and the data are transmitted to the appropriate California Historical Resources Information System Information Center.
- **Lithic:** Of or pertaining to stone. In archaeology, lithic artifacts are chipped or flaked stone tools and the stone debris resulting from their manufacture.

- **Native American sacred site:** An area that has been, and often continues to be, of religious significance to Native American peoples, such as an area where religious ceremonies are practiced or an area that is central to their origins as a people. They also include areas where Native Americans gather plants for food, medicinal, or economic purposes.
- **Pre-Contact period:** The era prior to 1772. The latter part of the pre-Contact period (post-1542) is also referred to as the protohistoric period in some areas, which marks a transitional period during which native populations began to be influenced by European presence, resulting in gradual changes to their lifeways.
- **Tribal Cultural Resource (TCR):** These are defined in AB 52 as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources (PRC § 21074 (a)(1)).
- **Unique Archaeological Resource:** This term is used for the purposes of CEQA and is defined in PRC Section (§) 21083.2(g) as an archaeological artifact, object, or site that does not merely add to the current body of knowledge. A Unique Archaeological Resource has a clearly demonstrated and high probability that it either contains information needed to answer important scientific research questions and that there is demonstrable public interest in that information, has a special and particular quality (such as being the oldest of its type or the best available example of its type) or is directly associated with a scientifically recognized important event or person of the past.

4.18.2 Environmental Setting

Refer to Section 4.5, *Cultural Resources*, of this Draft EIR for a greater discussion of the tribal cultural resources environmental setting.

Existing Tribal Cultural Resources

Native American Assembly Bill 52 Consultation

Per California PRC § 21080.3.1, AB 52 requires that within 14 days of a lead agency’s determination that an application for a project is complete or a decision by a public agency to undertake a project, the lead agency must provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC § 21073) and who have requested in writing to be informed by the lead agency (PRC § 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency’s formal notification, and the lead agency must begin consultation within 30 days of receiving the tribe’s request for consultation (PRC § 21080.3.1(d) and 21080.3.1(e)).

On August 8, 2023, pursuant to AB 52, Kern County sent consultation notification letters via certified mail to four California Native American tribal contacts on the County’s Master List for AB 52 consultation. Consultation letters were sent to contacts for the Tejon Indian Tribe, the Torres

Martinez Desert Cahuilla Indians, the Twenty-Nine Palms Band of Mission Indians, and the Yuhaaviatam of San Manuel Nation. No responses were received by the above listed Native American tribes during the 30-day consultation inquiry period, which ended September 8, 2023 (Table 4.18-1). No requests for consultation were received from any of the Tribes contacted.

Table 4.18-1: AB 52 Native American Consultation

Contact	Tribe	Date of Letter	Response
Candice Garza	Tejon Indian Tribe	August 8, 2023	No Response
Michael Mirelez	Torres Martinez Desert Chuilla Indians	August 8, 2023	No Response
Anthony Madrigal Jr.	Twenty-Nine Palms Band of Mission Indians	August 8, 2023	No Response
Darrell Mike	Twenty-Nine Palms Band of Mission Indians	August 8, 2023	No Response
Alexandra McCleary, Ph.D.	Yuhaaviatam of San Manuel Nation	August 8, 2023	No Response

Sacred Lands File Search

The California Native American Heritage Commission (NAHC) maintains a confidential Sacred Lands File (SLF) which contains sites of traditional, cultural, or religious value to the Native American communities. In an effort to determine whether any sacred sites are listed on its SLF, CRM Tech contacted the NAHC for a SLF search for the Project on May 25, 2023 (Appendix D). In response to CRM Tech's inquiry, the NAHC stated in a letter dated June 21, 2023, that the SLF search identified no record of places that are of special religious or social significance to Native American in the Project study area. Noting that the absence of specific information does not preclude the presence of cultural resources in the vicinity, the commission recommended contacting local Native American groups for pertinent information and proceeded to provide a referral list of nine individuals associated with five local Native American groups.

The records searches, supplemental research, and consultation did not reveal any known cemeteries or burial sites within the Project study area. No Native American sacred sites or human burials are known to be located within the site boundaries of the Project, and no responses were received by the consultation notification letters.

4.18.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

Native American Heritage Commission

Section 5097.91 of the California PRC established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the PRC specifies

a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

Assembly Bill 52 and Related Public Resource Code Sections

AB 52 was approved by California State Governor Edmund Gerry “Jerry” Brown, Jr., on September 25, 2014. The act amended California PRC § 5097.94 and added PRC § 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a Notice of Preparation or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration will be filed on or after July 1, 2015. The primary intent of AB 52 was to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as tribal cultural resources. PRC § 21074(a)(1) and (2) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the CRHR or included in a local register of historical resources, or a resource that is determined to be a TCR by a lead agency in its discretion and supported by substantial evidence. On July 30, 2016, the California Natural Resources Agency adopted the final text for TCRs update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

PRC § 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead must agency provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that are traditionally and culturally affiliated with the geographic area of the Project (as defined in PRC § 21073) and who have requested in writing to be informed by the lead agency (PRC § 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency’s formal notification and the lead agency must begin consultation within 30 days of receiving the tribe’s request for consultation (PRC §§ 21080.3.1(d) and 21080.3.1(e)).

PRC § 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary, the significance of tribal cultural resources, the significance of the project’s impacts on the tribal cultural resources, project alternatives or appropriate measures for preservation, and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC § 21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an EIR or adopt a Mitigated Negative Declaration (PRC § 21082.3(d)(2) and (3)).

PRC § 21082.3(c)(1) states that any information (including the location, description, and use of the tribal cultural resources) that is submitted by a California Native American tribe during the environmental review process would not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information would 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.

California Public Records Act

Sections 6254(r) and 6254.10 of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to “Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission.” Section 6254.10 specifically exempts from disclosure requests for “records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the NAHC, another State agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a State or local agency.”

California Native American Graves Protection and Repatriation Act of 2001

Codified in the California Health and Safety Code §§ 8010-8030, the California Native American Graves Protection and Repatriation Act (Cal NAGPRA) is consistent with the federal NAGPRA. Intended to “provide a seamless and consistent state policy to ensure that all California Indian human remains and cultural items be treated with dignity and respect,” Cal NAGPRA also encourages and provides a mechanism for the return of remains and cultural items to lineal descendants. Section 8025 established a Repatriation Oversight Commission to oversee this process. Cal NAGPRA also provides a process for non-federally recognized tribes to file claims with agencies and museums for repatriation of human remains and cultural items.

California Health and Safety Code, Sections 7050, 7052

California Health and Safety Code § 7050.5 declares that, in the event of the discovery of human remains outside of a dedicated cemetery, all ground disturbance must cease, and the county coroner must be notified. Section 7052 establishes a felony penalty for mutilating, disinterring, or otherwise disturbing human remains, except by relatives.

Local

Metropolitan Bakersfield General Plan

The Project is located within the administrative boundaries of the Metropolitan Bakersfield General Plan (MBGP) and would therefore be subject to applicable policies and measures of the MBGP. Chapter 2, *Land Use Element*, of the MBGP contains the following policy:

Policy 104: As part of the environmental review procedure, an evaluation of the significance of paleontological, archaeological, and historical resources and the impact of proposed development on those resources shall be conducted and appropriate mitigation and monitoring included for development projects.

4.18.4 Impacts and Mitigation Measures

Methodology

The Project's potential impacts on TCRs have been evaluated using a variety of resources, including an SLF search conducted by the NAHC. AB 52 notification letters were sent to Native American groups and individuals indicated by the NAHC to solicit information regarding the presence of tribal cultural resources. The County has synthesized the aforementioned resources and professional judgment, to analyze impacts according to CEQA significance criteria described below.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine if a project could potentially have a significant adverse effect on tribal cultural resources.

A project would normally be considered to have a significant impact if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC § 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is either of the following:

- Listed or eligible for listing in the CRHR, or in a local register of historical resources as defined in PRC § 5020.1(k)
- A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of PRC § 5024.1

In applying the criteria set forth in subdivision (c) of PRC § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Project Impacts

Impact 4.18-1a: The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).

Neither the SLF searches conducted by the NAHC nor the AB 52 consultation indicated the presence of known tribal cultural resources that is listed or eligible for listing in the CRHR or in a local register of historical resources within or immediately adjacent to the project site.

Construction, grading, and excavation activities have the potential to unearth previously undiscovered, historic tribal cultural materials. If such materials, including human remains, are found, a potentially significant impact may occur.

The project would implement **Mitigation Measures (MM) 4.5-1** through **MM 4.5-3** (see Section 4.5, *Cultural Resources*, for full mitigation measures).

Pursuant to Section 21080.3.2(b)(1) of AB 52, the lead agency considers the consultation concluded, as no responses have been received by the County during the designated consultation inquiry period from August 8, 2023, to September 8, 2023, or at the time of this writing.

However, the lead agency notes that that Section 21080.3.2 (c) of AB 52 states as follows:

- (1) This section does not limit the ability of a California Native American tribe or the public to submit information to the lead agency regarding the significance of the tribal cultural resources, the significance of the project's impact on tribal cultural resources, or any appropriate measures to mitigate the impact.
- (2) This section does not limit the ability of the lead agency or project proponent to incorporate changes and additions to the project as a result of the consultation, even if not legally required.

Mitigation Measures

Implementation of **MM 4.5-1** through **MM 4.5-3** (see Section 4.5, *Cultural Resources*, for full mitigation measures) would be required.

Level of Significance After Mitigation

With implementation of **MM 4.5-1** through **MM 4.5-3**, impacts would be less than significant after mitigation.

Impact 4.18-1b: The project would cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

As noted in Impact 4.18-1a, construction, grading, and excavation activities have the potential to unearth previously undiscovered, historic tribal cultural materials, which could cause a significant impact on found materials, including human remains.

The Project would implement **MM 4.5-1** through **MM 4.5-3** to reduce significant impacts on tribal cultural resources should inadvertent discovery during implementation of the Project occur. Adherence to **MM 4.5-1** requires employee training prior to commencement of ground disturbing activities. **MM 4.5-3** (see Section 4.5, *Cultural Resources*) further requires a Native American Monitor would monitor all project-related ground disturbing activities within 150 feet of the environmentally sensitive areas. Furthermore, **MM 4.5-3** requires the Native American Monitor be selected from contacts with traditional ties to the Project area.

Mitigation Measures

Implementation of **MM 4.5-1** through **MM 4.5-3** (see Section 4.5, *Cultural Resources*, for full mitigation measures) would be required.

Level of Significance After Mitigation

With implementation of **MM 4.5-1** through **MM 4.5-3**, impacts would be less than significant after mitigation.

4.18.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project.

The geographic context for this analysis includes the southern San Joaquin Valley, in unincorporated Kern County. Past, present, and future development projects contribute to impacts related to cultural or tribal cultural resources. As analyzed in the MBGP, there could be a cumulative impact in the County, with respect to historical, archaeological, and cultural resources, as a result of future development and related construction activities in the region. However, potential cumulative impacts would be mitigated to below a level of significance at an individual Project level by adherence to applicable current State and federal laws and regulations, as well as other applicable laws, regulations and mitigations, such as adherence to standard conditions of approval that require monitoring of construction sites near known resources, immediate cessation of construction activity upon discovery of unidentified human remains, and the protection of cultural resources that are discovered. Moreover, the Project's incremental contribution to less than significant cumulative impacts would not be cumulatively considerable or significant.

The combination of the above-mentioned and described efforts, standard construction conditions, and implementation of Mitigation Measures **MM 4.5-1** through **MM 4.5-4** would reduce potential cumulative impacts related to historical, archaeological, and cultural resources to a less than significant level.

Mitigation Measures

Implementation of **MM 4.5-1** through **MM 4.5-4** would be required.

Level of Significance After Mitigation

With implementation of **MM 4.5-1** through **MM 4.5-4**, cumulative impacts would be less than significant.

Section 4.19

Utilities and Service Systems

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Section 4.19

Utilities and Service Systems

4.19.1 Introduction

This section of the Draft Environmental Impact Report (EIR) describes the affected environment and regulatory setting regarding utilities and service systems. It also evaluates the impacts on utilities and service systems that would result from implementation of the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the 2024 Project-specific Water Supply Assessment (WSA) that was prepared by Kier and Wright (Appendix H.2), and will-serve letters from the Oildale Mutual Water Company and North of River Sanitary District (Appendix H.3).

4.19.2 Environmental Setting

Water Supply

The three sources of supply water typically used for development are natural sources, man-made sources, and reclaimed water. Natural sources include rivers, lakes, streams, and groundwater stored in aquifers. Human-created sources include runoff water treated and stored in reservoirs and other catchment structures. Reclaimed water is wastewater that has been conveyed to a treatment plant and then treated to a sufficient degree that it may again be used for certain uses, such as irrigation. However, reclaimed water is not potable (drinkable) and must be conveyed in a separate system to ensure that there is no possibility of direct human consumption.

A WSA report was prepared for the Project by Kier and Wright (Appendix H.2). The WSA used criteria in the California Water Code, as amended in 2002 by the passage of Senate Bill (SB) 610. The WSA analyzed the sufficiency of the proposed water supplies to meet the Project's projected future water demands, under all hydrologic conditions (normal years, single dry years, and multiple dry years), in addition to the existing and future water uses of the area within a 20-year planning horizon. The following sections describe the water supply for the Project.

The Oildale Mutal Water Company (OMWC) is the public water supplier for the Project. The OMWC's service area encompasses approximately 26.3 square miles in the southern portion of San Joaquin Valley, just north of Bakersfield, approximately 110 miles north of Los Angeles, and 290 miles southwest of San Francisco. The OMWC's service area includes the southeast Shafter area and the easterly half of Kern County, including Bakersfield and portions of Oildale. The OMWC merged the retail portion of the North of the River Municipal Water District's (NORMDWD) service area in 2014. The OMWC serves a total of approximately 37,726 customers with a total of 11,693 municipal connections. Services are mostly residential connections with some commercial and industrial customer connections.

OMWC's water supply source comes from purchased or imported water from the NORMWD/Kern County Water Agency (KCWA) and groundwater from the Kern County Subbasin.

As part of the monthly reporting, the OMWC records and submits production volumes to the State Water Resources Control Board (SWRCB). In 2020, approximately 79% of water delivered to customers was to residential customers, such as single-family and multifamily residences. The OMWC does not currently provide non-potable water to any of its customers. Water use within the OMWC service area has primarily been single-family residential, multifamily residential, and commercial/institutional. The least amount of water delivered to customers was used for industrial and landscaping. Water losses are accounted for and are considered very minuscule. **Table 4.19-1** presents the 2020 water demands per use category. **Table 4.19-2** presents the historical water demands from the previous five years.

Table 4.19-1: 2020 Water Demands by Category

Category	Annual Demands (acre-feet)
	2020
Single Family	6,309.68
Multifamily	1,037.25
Commercial/Institutional	1,474.05
Industrial	191.04
Landscape	234.11
Water Loss	3.19
Total Demand =	9,249

Table 4.19-2: Historic Water Use 2016-2020

Category	Annual Demands (acre-feet)				
	2016	2017	2018	2019	2020
NORMWD/KCWA Surface Water	7,762	8,150	8,630	8,116	8,475
OMWC Groundwater Pumped	345	501	595	714	774
Total Demand =	7,886	8,772	9,225	8,830	9,249

Key: KCWA = Kern County Water Agency; NORMWD = North of the River Municipal Water District; OMWC = Oildale Mutal Water Company

Existing Supply

The OMWC's surface water supply comes from the KCWA Improvement District Number 4's (ID No. 4) Henry C. Garnett Water Purification Plant. The KCWA ID No. 4 receives a municipal and industrial supply of 77,000 acre-feet and 5,846 acre-feet of agricultural Table A water from the State Water Project (SWP). ID No. 4 historically treats a minimum of 25,000 acre-feet for delivery to its treated water contractors. The NORMWD is contracted with the KCWA to receive 15,000 acre-feet per year (AFY) of the treated water supply. The OMWC is contracted with the NORMWD to receive 100% of the 15,000 acre-feet supply. The total amount of surface water available to

OMWC is 15,000 AFY. ID No. 4 has operated banking programs for many years; therefore, the surface water supply is projected to be available 100% of the time regardless of drought conditions.

The OMWC operates eight groundwater production wells that are all equipped with flow meters to measure water production. However, a public map with the locations of the existing eight wells was unavailable. Only five of the eight wells are active. Under the assumption that the five active groundwater wells operate for 8 hours a day, the total pumping capacity of the five wells is approximately 7,500 gallons per minute. The groundwater supply available to the OMWC is approximately 8,500 AFY. The OMWC owns the land where the groundwater well sites are and maintains a prescriptive water right to the groundwater pumped. This prescriptive water right is dedicated to public use.

The total available water supply to the OMWC is 23,500 AFY. **Table 4.19-3** presents a summary of OMWC's total water supplies.

Table 4.19-3: OMWC Existing Water Supply

Supply	Source	Authorization	Ever Used	Volume (acre-feet per year)
Purchased Surface Water	NORWM (Wholesaler)	Contract	Yes	15,000
OMWC Groundwater	OMWC Wells	Prescriptive Right	Yes	8,500
Total Water Supply				23,500

Key: NORMWD = North of the River Municipal Water District; OMWC = Oildale Mutal Water Company

Kern County Subbasin

Groundwater is an existing water supply source for the OMWC. However, since the California SWP delivery system was initiated in 1977, local groundwater has only been used as a supplemental source that has historically been approximately 10% of the OMWC's supply. Groundwater supplied by the OMWC is drawn from the Kern County Subbasin within the Tulare Lake Hydrologic Region of the San Joaquin Valley Basin. The Kern Groundwater Authority's basin manager oversees the Kern County Subbasin. The Kern County Subbasin is not adjudicated.

The Kern County Subbasin is bounded to the north by the Tulare Lake and Tule Subbasin, to the east and south by the crystalline bedrock of the Sierra Nevada and San Emigdio Mountains, and to the west by the marine sediments of the San Emigdio Mountains and Coast Ranges. Continental deposits shed from the surrounding mountains form an alluvial wedge that thickens from the valley margins toward the axis of the structural trough. Sediments that comprise the shallow intermediate-depth water-bearing deposits in the groundwater subbasin are primarily continental deposits of Tertiary and Quaternary age. From oldest to youngest the deposits include Olcese and Santa Margarita Formations; the Tulare Formation (western subbasin) and its eastern subbasin equivalent, the Kern River Formation; older alluvium/stream deposits; and younger alluvium and coeval flood basin deposits.

Estimates by the California Department of Water Resources (DWR) San Joaquin District office for the unconfined aquifer (Tulare and Kern River Formations and overlying alluvium) range from 5.3 to 19.6% and average 11.8% for the interval from surface to 300 feet below grade. The DWR groundwater model of Kern County lists the range as 8.0 to 19.5% with an average value of 12.4% representing an interval thickness of 175 to 2,900 feet and averaging approximately 600 feet. The greatest thickness of unconfined aquifer occurs along the eastern subbasin margin. The highest specific yield values are associated with sediments of the Kern River Fan west of Bakersfield. The KCWA estimates the total water in storage to be 40,000,000 acre-feet and dewatered aquifer storage to be 10,000,000 acre-feet.

Groundwater Management

The Sustainable Groundwater Management Act (SGMA) was implemented in 2014 to ensure the protection of groundwater in California. The SGMA set forth a statewide directive to bring groundwater basins to a sustainable level through groundwater management and planning. The act requires that groundwater basins and subbasins designated as medium or high priority (critical overdraft) by the DWR, develop Groundwater Sustainable Agencies (GSAs) to implement Groundwater Sustainability Plans (GSPs) that manage groundwater sustainability over 20 years.

The DWR has determined that the Kern County Subbasin is critically overdrafted and, therefore, a high-priority subbasin. The Kern County Subbasin is managed by 14 different GSAs. The OMWC's service area lies primarily within the boundary of the Kern River GSA, with the rest of the service area in the boundaries of the Kern Groundwater Authority GSA, and the Cawelo Water District GSA. The following six GSAs have submitted GSPs: Kern River GSA, Buena Vista GSA, South of the Kern River GSA, Olcese Water District GSA, and Henry Miller GSA. Each GSP covers a certain area of the Kern County Subbasin.

The six GSPs were determined to be inadequate by the DWR due to inconsistencies. The six GSAs are addressing these inconsistencies to satisfy the requirements of SGMA. The GSP will aim to alleviate overdraft conditions in the Kern County Subbasin by implementing actions that help negate a negative change in groundwater storage. These implementation actions will aim to maintain groundwater levels as well as prevent water quality degradation and land subsidence. The GSPs will implement actions that achieve sustainability in the subbasin by the year 2042.

The KCWA has implemented a groundwater recharge program that has subsequently reduced the pumping of the OMWC. This has stabilized the water table beneath the OMWC service area. Additionally, the Kern Groundwater Authority GSA, Kern River GSA, and the Cawelo Water District GSA are managing groundwater levels within a safe basin operating range. The OMWC continues to aid these efforts by recommending water use reductions to its customers.

Wastewater

The Project site is within the service area boundaries of the North of the River Sanitary District (NORSRD or District). NORSRD serves the unincorporated community of Oildale, the northern portion of County Service Area 71 that includes portions of the city of Bakersfield, and the city of Shafter, with the nearest planned sewer areas located west across State Route 99. The District provides wastewater collection and wastewater treatment for a population of more than 55,000 people and a service area of approximately 54 square miles.

The collection system consists of approximately 174 miles of sewers ranging from 6 inches to 54 inches and five lift stations. Additionally, the system includes approximately 3,236 manholes and cleanouts by line size and serves approximately 23,400 active sewer connections plus the outfall from the city of Shafter. The nearest sewer main is a 10-inch trunk sewer line that runs along Airport Drive, east of the Project site, however, no sewer lines or infrastructures are currently located within the Project site.

Wastewater Treatment

Based on the NORSRD Sewer Master Plan, the Project area is within the NORSRD service area, and wastewater from the Project site would be collected and transported to the NORSRD Wastewater Treatment Plant (WWTP). Wastewater is collected from residences and businesses into the District collection system and conveyed to the 7.5-million-gallon-per-day (MGD) WWTP, approximately 17.3 miles west of the Project site. The sewage collection system consists of approximately 180 miles of sewer pipeline ranging from 6-inch to 54-inch in diameter. The District has five lift stations that pump wastewater from lower to higher elevations within the system such that the wastewater can gravity flow to the WWTP. The treatment capacity of the District's WWTP is 7.5 MGD and the permitted capacity is 7.5 MGD. Effluent from the WWTP is undisinfected secondary water (NORSRD 2018).

The WWTP utilizes primary treatment and secondary treatment technologies to treat the wastewater. All the treated WWTP effluent is recycled on adjacent irrigated farmland where it is used for the irrigation of fodder, fiber, and seed crops for non-human consumption. Biosolids are treated in digesters, dewatered, stored, and then applied to adjacent farmland for soil conditioning and as a fertilizer.

Stormwater Drainage

The Project site is flat with a gentle north-easterly slope; however, outside of leveled fields and orchards, the area is better described as an uneven plain consisting of extensive alluvial fans, debris flow, and over-bank deposits. Project site runoff follows topography and drains to the northeast across the site toward Airport Drive. There are no existing stormwater drainage systems on the Project site.

The City of Bakersfield is responsible for the operation and maintenance of a majority of residential and commercial and industrial stormwater conveyance systems (including catch basins, stormwater pipes, manholes, junction boxes, and inlet structures) and disposal systems (typically an infiltration

basin) surrounding the Project site. The city's urbanized areas reflect limited annual rainfall and relatively flat topography. Both the City and the County adopted several "planned drainage areas" for which master storm drain system plans have been developed and area-specific, benefit-related development fees are charged to fund the construction of major drainage facilities (City of Bakersfield and Kern County 2007). The Project site is located within the Oildale Planned Drainage Area (Kern County 2024).

Solid Waste

Solid waste generally refers to garbage, refuse, sludge, and other discarded solid materials that come from residential, industrial, and commercial activities. Construction, demolition, and inert wastes are also classified as solid waste. Such wastes include nonhazardous building materials such as asphalt, concrete, brick, drywall, fencing, metal, packing materials, pallets, pipe, and wood. The general waste classifications used for California waste management units, facilities, and disposal sites are outlined in this section. Nonhazardous solid waste consists of organic and nonorganic solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, and vegetable or animal solid and semisolid wastes; and other discarded waste, provided that such wastes do not contain hazardous materials or soluble pollutants in concentrations that would exceed applicable water quality objectives or cause a degradation of waters of the State.

California State law regulates the types of waste that may be disposed of at the different classes of landfills. Class I landfills may accept hazardous and nonhazardous wastes. Class II landfills may accept designated and nonhazardous wastes, and Class III landfills may accept nonhazardous wastes.

Landfills

The Kern County Public Works Department operates seven recycling and sanitary landfills throughout the County. Landfills are located in Bakersfield, Boron, Mojave-Rosamond, Ridgecrest, Shafter-Wasco, Taft, and Tehachapi (Kern County Public Works Department 2024a). No solid waste is currently generated at the Project site. The Project would likely be served primarily by the Bena Landfill, at 2951 Neumarkel Road approximately 17 miles southeast of the Project site. This landfill accepts batteries, clean dirt, clean inerts (for example, source-separated asphalt, brick, and concrete); construction and demolition (C&D) waste (for example, asphalt, brick, concrete, dirt, and metal), dead animals, electronic waste, green waste, ordinary household trash, tires, treated wood waste, and used motor oil (Kern County Public Works Department 2024a).

Kern County is responsible for meeting the California Integrated Waste Management Act of 1989 (Assembly Bill [AB] 939). AB 939 required cities and counties to reduce the amount of solid waste being sent to landfills by 50% by January 1, 2000. It also required cities and counties to prepare solid waste planning documents. These documents included the Source Reduction and Recycling Element (SRRE), Hazardous Waste Element, and Non-disposal Facility Element. All three of these documents, as well as the Integrated Waste Management Plan (approved in February 1998 and

amended in 2015 by the California Integrated Waste Management Board) have been approved for Kern County. The Kern County Integrated Waste Management Plan is the long-range planning document for landfill facilities (Kern County Public Works Department 2024a).

C&D waste is generally heavy, inert material. This material creates significant problems when disposed of in landfills. Because C&D waste is heavier than paper and plastic, it is more difficult for counties and cities to reduce the tonnage of disposed waste. For this reason, C&D waste has been specifically targeted by the State of California for diversion from the waste stream. Projects that generate C&D waste should emphasize deconstruction and diversion planning rather than demolition. Deconstruction is the planned, organized dismantling of a prior construction project, allows maximum use of the deconstructed materials for recycling in other construction projects, and sends a minimum amount of the deconstruction material to landfills.

The Waste Operations Division of the Kern County Public Works Department administers or sponsors the following recycling programs that contribute toward meeting State-mandated solid waste diversion goals:

- Recycling programs at landfills to recycle or divert a wide variety of products, such as wood waste, cathode ray tubes, tires, inert materials, and appliances.
- Drop-off recycling centers for household recyclables. County- and City-operated drop-off recycling centers are located in the unincorporated metropolitan area and the city, and may be used by both county and city residents.
- Financial assistance for operation of the City of Bakersfield Green Waste Facility.
- The Kern County Special Waste Facility for the disposal of household hazardous waste. The facility serves all Kern County residents.
- Semiannual “bulky waste” collection events that are held in the Bakersfield area and available to both County and city residents (co-sponsor).
- Christmas tree recycling campaign (participates jointly with the City of Bakersfield).
- Telephone book recycling program (co-sponsors with Community Clean Sweep).
- Community Clean Sweep summer workshops called “Trash to Treasure” that educate children about recycling and other Kern County Waste Management Department programs (sponsor).
- An innovative elementary school program called the “Clean Kids Hit the Road Puppet Show” (operates in collaboration with Community Clean Sweep).
- Recycling trailers for churches, schools, and nonprofit organizations.

Electric Power, Natural Gas, and Telecommunications

The Project site is in the area served by Pacific Gas and Electric (PG&E) for electric power. The nearest existing PG&E substation to the Project site is approximately 1 mile northeast in Bakersfield. Natural gas service is to be provided by PG&E. No known natural gas pipelines or telecommunication lines exist at the Project site.

4.19.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

State Water Resources Control Board and Regional Water Quality Control Board

The SWRCB and the nine Regional Water Quality Control Boards (RWQCBs), collectively known as the California Water Boards (Water Boards), are dedicated to a single vision: abundant clean water for human uses and environmental protection to sustain California's future. Under the federal Clean Water Act and the State's pioneering Porter-Cologne Water Quality Control Act, the SWRCB and RWQCBs have regulatory responsibility for protecting the water quality of nearly 1.6 million acres of lakes, 1.3 million acres of bays and estuaries, 211,000 miles of rivers and streams, and approximately 1,100 miles of exquisite California coastline.

The California SWRCB and RWQCBs enforce State of California statutes that are equivalent to or more stringent than the federal statutes. RWQCBs are responsible for establishing water quality standards and objectives that protect the beneficial uses of various waters. The Project site is within the jurisdiction of the Lahontan RWQCB.

The RWQCB's regulatory role often involves the formation and implementation of basic water protection policies. These are reflected in the individual RWQCB's Basin Plan in the form of guidelines, criteria, and/or prohibitions related to the siting, design, construction, and maintenance of on-site sewage disposal systems. The SWRCB's role has historically been to provide overall policy direction, organizational and technical assistance, and a communications link to the State legislature.

California Department of Water Resources

The California DWR is responsible for protecting, conserving, developing, and managing much of California's water supply. These duties include preventing and responding to floods, droughts, and catastrophic events; informing and educating the public on water issues; developing scientific solutions; restoring habitats; planning for future water needs, climate change impacts, and flood protection; constructing and maintaining facilities; generating power; ensuring public safety; and providing recreational opportunities.

California Water Code Section 13260

California Water Code Section 13260 requires any person who discharges waste, other than into a community sewer system, or proposes to discharge waste that could affect the quality of waters of the State to submit a report of waste discharge to the applicable RWQCB. Any actions of the projects that would be applicable under California Water Code Section 13260 would be reported to the Central Valley RWQCB. However, the Project is not expected to discharge waste into the local sewer system and, therefore, is not required to prepare and submit the described report.

Senate Bills 610 and 221

Senate Bill (SB) 610 and SB 221, passed in 2001, are companion measures that seek to promote more collaborative planning among local water suppliers, cities, and counties. SB 610 requires a city or county that determines that a project, as defined, is subject to CEQA to identify any public water system that may supply water for the project and to request those public water systems to prepare a specified water assessment. The Project is subject to CEQA and is considered to be a project that requires the preparation of a WSA because it is a proposed industrial facility occupying more than 40 acres of land.

If groundwater is the proposed supply source, the required assessments must include detailed analyses of historic, current, and projected groundwater pumping and an evaluation of the sufficiency of the groundwater basin to sustain a new project's demands. The assessments also require identifying existing water entitlements, rights, and contracts; and quantifying the prior year's water deliveries. In addition, the supply and demand analysis must address water supplies during normal, single, and multiple dry years, presented in five-year increments for a 20-year projection.

Section 10912(a) of the California Water Code identifies a "project" as meeting any of the following criteria:

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A commercial building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A hotel or motel with more than 500 rooms
- A proposed industrial, manufacturing, or processing plant, or industrial park, planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of these elements.
- A project creating the equivalent demand of 500 residential units.

Sustainable Groundwater Management Act

In 2014, California enacted the SGMA (Water Code Section 10720 et seq.). This act, and related amendments to California law, require that all groundwater basins designated as high- or medium-priority in the DWR California Statewide Groundwater Elevation Monitoring program, and that are subject to critical overdraft conditions, must be managed under a new GSP or a coordinated set of GSPs by January 31, 2020. High- and medium-priority basins that are not subject to critical overdraft conditions must be managed under a GSP by January 31, 2022. Where GSPs are required, one or more local GSAs must be formed to cover the basin and prepare and implement applicable GSPs. The SGMA does not apply to basins that are managed under a court-approved adjudication, or to low- or very low-priority basins.

California Department of Water Resources California's Groundwater (Bulletin 118)

California's Groundwater (Bulletin 118) is the State's official publication on the occurrence and nature of groundwater in California. The publication defines the groundwater basin boundaries and summarizes groundwater information for each of the State's 10 hydrologic regions. California's Groundwater features current knowledge of groundwater resources, including information on the location, characteristics, use, management status, and conditions of the State's groundwater. The publication also presents findings and recommendations that support the future management and protection of groundwater.

California Department of Resources and Recycling and Recovery

California Department of Resources Recycling and Recovery (CalRecycle) is the State agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. CalRecycle administers and provides oversight for all of California's State-managed nonhazardous waste handling and recycling programs. CalRecycle provides training and ongoing support for local enforcement agencies that regulate and inspect California's active and closed solid waste landfills (CalRecycle 2024).

The Integrated Waste Management Act of 1989 (Public Resources Code [PRC] 40050 et seq. or AB 939, codified in PRC 40000), administered by CalRecycle, requires all local and county governments to adopt an SRRE to identify means of reducing the amount of solid waste sent to landfills. This law set reduction targets at 25% by the year 1995 and 50% by the year 2000. To assist local jurisdictions in achieving these targets, the California Solid Waste Reuse and Recycling Access Act of 1991 requires all new developments to include adequate, accessible, and convenient areas for collecting and loading recyclable and green waste materials.

California Integrated Waste Management Act (AB 939)

California adopted its first statewide, general recycling program in 1989. The Integrated Waste Management Act of 1989 (PRC 40050 et seq. or AB 939, codified in PRC 40000), administered by CalRecycle, requires all local and county governments to adopt an SRRE to identify means of

reducing the amount of solid waste sent to landfills. This law set reduction targets at 25% by the year 1995 and 50% by the year 2000.

SB 1374 (Construction and Demolition Waste Materials Diversion)

Senate Bill 1374 (SB 1374), C&D Waste Materials Diversion Requirements, was adopted in 2002 and requires that jurisdictions summarize their progress realized in diverting C&D waste from the waste stream in their annual AB 939 reports. SB 1374 required the California Integrated Waste Management Board (CIWMB) to adopt a model C&D ordinance for voluntary implementation by local jurisdictions.

California Integrated Waste Management Board Model Ordinance

Subsequent to the Integrated Waste Management Act, additional legislation was passed to assist local jurisdictions in accomplishing the goals of AB 939. The California Solid Waste Reuse and Recycling Access Act of 1991 (PRC § 42900-42911) directs the CIWMB to draft a “model ordinance” relating to adequate areas for collecting and loading recyclable materials in development projects. The model ordinance requires that any new development project, for which an application is submitted on or after September 1, 1994, include “adequate, accessible, and convenient areas for collecting and loading recyclable materials.” For subdivisions of single-family detached homes, recycling areas are required to serve only the needs of the homes within that subdivision.

California Solid Waste Reuse and Recycling Access Act of 1991 or Senate Bill 1327

The California Solid Waste Reuse and Recycling Access Act of 1991 (PRC Chapter 18) identified a lack of adequate areas for collecting and loading recyclable materials, resulting in a significant impediment to diverting solid waste. This act requires state and local agencies to address access to solid waste for source reduction, recycling, and composting activities. Each local agency must adopt an ordinance related to adequate areas for collecting and loading recyclable materials for development projects.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act authorizes regulation of California water rights and water quality by the SWRCB. This act also established nine RWQCBs to ensure that water quality on local and regional levels is maintained. The Project area is under the jurisdiction of the Central Valley RWQCB.

California Mandatory Commercial Recycling Law (AB 341)

AB 341 directed CalRecycle to develop and adopt regulations for mandatory commercial recycling. CalRecycle initiated formal rulemaking with a 45-day comment period beginning October 28, 2011. The final regulation was approved by the Office of Administrative Law on May 7, 2012. The purpose of AB 341 is to reduce greenhouse gas emissions by diverting commercial solid waste to recycling efforts and to expand the opportunity for additional recycling services and recycling manufacturing facilities in California.

Beginning on July 1, 2012, businesses have been required to recycle, and each jurisdiction has implemented programs that include education, outreach, and monitoring. Jurisdictions were required to start reporting on their 2012 Electronic Annual Report (due August 1, 2013) on their initial education, outreach, and monitoring efforts, and, if applicable, on any enforcement activities or exemptions implemented by the jurisdiction.

In addition to mandatory commercial recycling, AB 341 sets a statewide goal of a 75% disposal reduction by the year 2020. This is not written as a 75% diversion mandate for each jurisdiction. The 50% disposal reduction mandate still stands for cities, counties, and State agencies (including community colleges) under AB 939. CalRecycle continues to evaluate program implementation as it has in the past through the Annual Report review process for entities subject to AB 939.

California Department of Resources Recycling and Recovery (formerly California Integrated Waste Management Board)

CalRecycle is the State agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of the California Environmental Protection Agency. CalRecycle develops regulations to control and manage waste, for which enforcement authority is delegated to the local government. CalRecycle works jointly with local governments to implement regulations and fund programs.

California Short-lived Climate Pollutant Reduction Strategy (SB 1383)

Senate Bill 1383 (SB 1383), Short-lived Climate Pollutants: Organic Waste Reductions, was signed into law in September 2016 to reduce short-lived, harmful super pollutants with significant warming impacts and is essential to achieving California's climate goals. SB 1383 makes it mandatory for all business to recycle their organics weekly as well as requires businesses to divert their organics material from going to the landfill, which can include donating surplus food. Its statewide goal is to reduce the amount of organic waste disposed of in landfills (50% reduction by 2020 and 75% reduction by 2025). It also aims to rescue food for people to eat—at least 20% of currently disposed surplus food by 2025.

SB 1383 requires counties to take the lead in collaborating with jurisdictions within the county in planning for the necessary organic waste recycling and food recovery capacity needed to divert organic waste from landfills into recycling activities and food recovery organizations. It requires organic waste facilities and operations to measure and report organic waste material activity, including composting and anaerobic digestion.

Energy California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24 Building Standards)

The California Energy Commission administers Title 24 Building Standards that were adopted in 1976 in response to a legislative mandate to reduce California's energy consumption. Standards are periodically updated to allow consideration and possible incorporation of new energy efficiency technologies and methods. California's building efficiency standards are updated on an approximately three-year cycle. On August 11, 2021, the California Energy Commission adopted

the 2022 Energy Code. In December, it was approved by the California Building Standards Commission for inclusion into the California Building Standards Code. The 2022 Energy Code encourages efficient electric heat pumps, establishes electric-ready requirements for new homes, expands solar photovoltaic and battery storage standards, strengthens ventilation standards, and more. Buildings whose permit applications are applied for on or after January 1, 2023, must comply with the 2022 Energy Code.

California Green Building Code

As part of compliance with the State of California Green Building Code Requirements (known as CALGreen) that took effect beginning January 2011, Kern County implemented the following construction waste diversion requirements:

- Submittal of a construction waste management plan prior to project construction for approval by the Kern County Building Department.
- Recycling or reuse, or both, of a minimum 50% of C&D waste.
- Recycling or reuse of 100% of tree stumps, rocks, and associated vegetation and soils resulting from land clearing (AB 341).

Since the passage of AB 939, diversion rates in California have been reduced to approximately 65%, the statewide recycling rate is approximately 50%, and the beverage container recycling rate is approximately 80%. In 2011, the State passed AB 341, which established a policy goal that a minimum of 75% of solid waste must be reduced, recycled, or composted by the year 2020. The State provided the following strategies to achieve that 75% goal:

1. Moving organics out of the landfill.
2. Expanding the recycling and manufacturing infrastructure.
3. Exploring new approaches for state and local funding of sustainable waste management programs.
4. Promoting state procurement of post-consumer recycled content products.
5. Promoting extended producer responsibility.

To achieve these strategies, the State recommended legislative and regulatory changes including mandatory organics recycling, solid waste facility inspections, and updates to packaging. With regard to C&D, the State recommended an expansion of California Green Building Code standards that incentivize green building practices and increase the diversion of recoverable C&D materials. Current standards require 65% waste diversion on construction and some renovation projects. The State also recommends promoting the recovery of C&D materials suitable for reuse, compost, or anaerobic digestion before residual wastes are considered for energy recovery.

Local

Kern Integrated Regional Water Management Plan

The Kern Region published an Integrated Regional Water Management Plan update in 2020. The 2020 Tulare Lake Basin Portion of Kern County Integrated Regional Water Management (IRWM) Plan Update (2020 Plan Update) includes new information as required by the DWR 2016 Integrated Regional Water Management Proposition 1 Guidelines. IRWM is a collaborative effort to manage all aspects of water resources in a region. The State recognizes that there is a need to consider a broader range of resource management issues, competing water demands, new approaches to ensuring water supply reliability, and new ways of financing. The State's IRWM program was developed beginning with SB 1672, which created the IRWM Act to encourage local agencies to work cooperatively to manage local and imported water supplies to improve water quality, quantity, and reliability.

Tulare Lake Basin Portion of Kern County Integrated Regional Water Management Plan

The Tulare Lake Basin Portion of Kern County Region, as defined for this IRWMP, consists of that portion of the Tulare Lake Basin hydrologic region that is within Kern County, with small additional areas that are included for hydrologic reasons. The IRWMP develops a cooperative regional framework, implementation plan, and context for managing water resources in the Kern region. Objectives detailed by the plan for the Kern region include increasing water supply; improving operational efficiency, water quality, regional flood management; and promoting land use planning and resource stewardship.

OMWC Urban Water Management Plan

OMWC prepared a 2020 Urban Water Management Plan (UWMP) as an update to the 2015 Plan. The UWMP was prepared in accordance with the Urban Water Management Planning Act enacted in 1983 and provides an assessment of the present and future water supply sources and demands within OMWC's service area. The UWMP serves as a planning document that includes descriptions of historical and projected water demands and supplies, and evaluates the water system's reliability during various climatic conditions over 20 years.

The OMWC supplies potable water to a population of approximately 37,726 residents. The sources of potable water for the system are pumped groundwater wells that are owned and operated by OMWC and also from the wholesale water supplier, NORMWD. The Company's sources of water supply include both groundwater wells and treated surface water supplied to its service area from the ID No. 4 Henry C. Garnett Water Purification Plant. The Company's main water supply is from the purification plant and the total amount of treated surface water available to OMWC is 15,000 AFY (OMWC 2022).

The OMWC's service area lies within areas managed by the Kern Groundwater Authority GSA, Kern River GSA, and the Cawelo Water District GSA, which also manage the Kern County Subbasin. According to DWR, California Bulletin 118, the subbasin is in a water-short condition.

The Kern Groundwater Subbasin was identified as “critically overdrafted” by the DWR. The DWR also identified the subbasin as “High Priority” due to overdraft, land subsidence, and groundwater quality degradation. Similarly, the SGMA has designated the Kern Groundwater Subbasin as a high priority.

Kern County Integrated Waste Management Plan

The State requires the Kern County Public Works Department to plan and implement waste management activities and programs in the County’s unincorporated area to ensure compliance with AB 939 and subsequent State mandates. The Kern County Integrated Waste Management Plan includes a Reduction and Recycling Element, Household Hazardous Waste Element, and Non-disposal Facility Element. The Plan was approved in February 1998 by the CIWMB (now California Department of Resources Recycling and Recovery, or CalRecycle). The Kern County Integrated Waste Management Plan is a long-range planning document for landfill facilities.

Kern County Public Works Department Recycling Programs

The Waste Operations Division of the Kern County Public Works Department administers or sponsors the following recycling programs, which contribute toward meeting State-mandated solid waste diversion goals to achieve 75% recycling, composting, or source reduction of solid waste by 2020:

- Recycling programs at landfills to recycle or divert a wide variety of products, such as wood waste, cathode ray tubes, tires, inert materials, and appliances.
- Drop-off recycling centers for household recyclables. The County- and the city-operated drop-off recycling centers, which are in the unincorporated metropolitan area and the city, may be used by both County and city residents.
- Financial assistance for operation of the City of Bakersfield Green Waste Facility.
- The Kern County Special Waste Facility for the disposal of household hazardous waste provides services to all Kern County residents.
- Semi-annual “bulky waste” collection events are held in the Bakersfield area and available to both County and city residents (co-sponsor).
- Christmas tree recycling campaign (participates jointly with the City of Bakersfield).
- Telephone book recycling program (co-sponsors with Community Clean Sweep).
- Community Clean Sweep summer workshops called “Trash to Treasure,” which educate children about recycling and other Kern County Waste Management Department programs (sponsor).
- An innovative elementary school program called the “Clean Kids Hit the Road Puppet Show” (operates in collaboration with Community Clean Sweep).
- Recycling trailers for churches, schools, and nonprofit organizations.

Metropolitan Bakersfield General Plan

The Project is located within the Metropolitan Bakersfield General Plan (MBGP) area; therefore, would be subject to applicable policies and measures of the MBGP. The Conservation Element and Public Services and Facilities Element of the MBGP include goals, policies, and implementation measures related to utilities that apply to the Project, as described below.

Chapter V. Conservation Element

Water Resources

Goals

Goal 1. Conserve and augment the available water resources of the planning area.

Goal 2. Assure that adequate groundwater resources remain available to the planning area.

Goal 3. Assure that adequate surface water supplies remain available to the planning area.

Chapter X. Public Services and Facilities Element

General Utility Services

Goals

Goal 1. Maintain a coordinated planning and implementation program for the provision of public utilities to the planning area.

Goal 2. Coordinate the planning and implementation of planning area municipal-type utility facilities and services.

Policies

Policy 5. Require all new development to pay its pro rata share of the cost of necessary expansion in municipal utilities, facilities and infrastructure for which it generates demand and upon which it is dependent.

Water Distribution

Goals

Goal 1. Ensure the provision of adequate water service to all developed and developing portions of the planning area.

Policies

Policy 3. Require that all new development proposals have an adequate water supply available.

Sewer Service

Goals

Goal 1. Ensure the provision of adequate sewer service to serve the needs of existing and planned development in the planning area.

Goal 3. Provide trunk sewer availability to and treatment/disposal capacity for all metropolitan urban areas, to enable cessation or prevention of the use of septic tanks where such usage creates potential public health hazards or may impair groundwater quality, and to assist in the consolidation of sewerage systems. Provide sewer service for urban development regardless of jurisdiction.

Policies

Policy 1. Effect the consolidated collection, treatment, and disposal of wastewater from all urban development within the metropolitan area, discouraging the creation or expansion of separate systems and encouraging the consolidation and interconnection of existing separate systems.

Implementation Measures

Implementation Measure 1. Require all new urban development to be serviced by centralized wastewater collection, treatment and disposal facilities.

Storm Drainage

Goals

Goal 1. Ensure the provision of adequate storm drainage facilities to protect planning area residents from flooding resulting from storm water excess.

Goal 2. Maintain a comprehensive storm drainage system which serves all urban development within the planning areas.

Implementation Measures

Implementation Measure 4. Use drainage area retention basins for drainages disposal when direct discharge to a waterway is not available. Combine storm drainage usage with recreational usage when feasible. Incorporate in such basins recessed areas for off-season retention of nuisance flows. Maintain all basins with primary purpose of drainage disposal, with recreational usage as a secondary objective.

Solid Waste

Goals

Goal 1. Ensure the provision of adequate solid waste disposal services to meet the demand for these services in the planning area.

Policies

Policy 1. Comply with, and update as required, the adopted county solid waste management plan.

Implementation Measures

Implementation Measure 1. Implement the "Kern County Solid Waste Management Plan-1988", and subsequent updates which will make the Metropolitan Bakersfield Municipal landfill at Bena available to the General Plan area.

Kern County Floodplain Management Ordinance (17.48)

Any construction that takes place within areas of special flood hazards, areas of flood-related erosion hazards, and areas of mudslide (that is, mudflow) hazards within the jurisdiction of unincorporated Kern County will comply with the requirements and construction design specifications of this ordinance. Any required development permits will be obtained before the commencement of construction activities. Sections 17.48.250 through 17.48.350 of the ordinance elaborate on the standards of construction in the special flood hazards area.

Kern County Development Standards

The Kern County Development Standards apply to all developments within Kern County that are outside of incorporated cities. These standards establish minimum design and construction requirements that will result in improvements that are economical to maintain and will adequately serve the public. The requirements outlined in these standards are considered minimum design standards and will require the approval of the entity that will maintain the facilities to be constructed before approval by Kern County.

Kern County Construction Diversion Requirements per the California Green Building Code

As part of compliance with the State of California Green Building Code Requirements (known as CALGreen) that took effect beginning January 2011, Kern County implemented the following construction waste diversion requirements:

- Submittal of a Construction Waste Management Plan before project construction for approval by the Kern County Building Department.
- Recycling and/or reuse of a minimum 50% of C&D waste.
- Recycling or reuse of 100% of tree stumps, rocks, and associated vegetation and soils resulting from land clearing.

4.19.4 Impacts and Mitigation Measures

Methodology

Potential impacts on utilities and service systems associated with the construction and operation of the Project have been evaluated using a variety of resources, including multiple online sources and published documents, as well as the Project-specific WSA provided in Appendix H.2 and will-serve letters. Using these resources and professional judgment, impacts were analyzed according to significance criteria established in Appendix G of the CEQA Guidelines, described below.

Thresholds of Significance

The Kern County California Environmental Quality Act (CEQA) Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine whether a project could potentially have a significant adverse effect on utilities and service systems.

A project could have a significant adverse effect on utilities and service systems if it would:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years.
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste-reduction goals.
- Comply with federal, state, and local management and reduction statutes and regulations related to solid waste.

Project Impacts

Impact 4.19-1: The Project would require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Water and Wastewater Facilities

The Project would require water during construction for common construction-related activities, such as dust suppression, soil compaction, excavation, grading activities, equipment cleaning, vehicle wash downs, washout basins, re-compaction of backfill materials, concrete pouring, and related activities. Construction water will be trucked from the OMWC. During construction activity, wastewater contained within portable toilet facilities and hand-washing facilities would be disposed of at an approved off-site disposal site. The Kern County Public Health Services Department Environmental Health Services Division is responsible for monitoring the use of portable toilet facilities, and the Project proponent would be required to provide documentation of a portable toilet pumping contract. No off-site sewage or disposal connections to a municipal sewer system exist or are proposed during the construction phase. For these reasons, Project construction would not require or result in the construction of any new water or wastewater facilities that could cause significant environmental effects and, thus, impacts during construction would be less than significant.

During the operation of the Project, the OMWC would supply water to the Project, where service laterals would be extended from an existing water line within Airport Road. The nearest sewer main is a 10-inch trunk sewer line that runs along Airport Drive, east of the Project site. The existing outfall sewer runs approximately 1.5 miles southwest of the Project site and discharges to the WWTP. The extension and construction of wastewater facilities is not proposed as part of the Project. The Project would not require or result in the relocation or construction of new or expanded water and wastewater conveyance facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be less than significant.

Stormwater and Drainage Facilities

The Project would result in increased areas of impervious surfaces, resulting in the need for additional or expanded stormwater drainage, conveyance, and retention infrastructure. During Project construction, stormwater would be managed through compliance with National Pollutant Discharge Elimination System (NPDES) General Construction Permit requirements, where the proposed Project would design and submit a site-specific Storm Water Pollution Prevention Plan (SWPPP) to minimize the discharge of stormwater during construction. Additionally, a Water Quality Management Plan would be prepared, which includes best management practices for runoff control, as described in Section 4.10, *Hydrology and Water Quality*. All construction-related stormwater management features would be replaced with permanent stormwater infrastructure as described below.

The Project would install an on-site storm drainage system consisting of inlets, underground piping, and surface and underground basins. Runoff would drain to retention basins located on the south side of each building within the boundaries of the Project site. The basins would be designed to accommodate a 100-year storm event and would detain runoff and release it at a rate no greater than the pre-development condition of the Project site. The Project would be required to retain the stormwater per Kern County's drainage requirements and all other applicable standards, which include measures to address stormwater controls on both management of runoff volume and water quality, including controlling erosion and protection of water quality of stormwater runoff. The Project would not exceed the capacity of existing stormwater drainage systems in the area. Therefore, the operation of the Project would not result in the relocation or construction of new or expanded stormwater drainage facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be less than significant.

Electricity and Natural Gas

The proposed Project would increase the demand for electricity within the Project site. Currently, there are no existing electrical connections at the Project site. During the construction of the Project, electricity would be consumed, on a limited basis, for power lighting, electric equipment, and water supply and conveyance for dust control. Temporary electric power would likely be provided to the Project site through the use of generators.

During the operation of the Project, electricity would be supplied to the Project site by PG&E. The Project proposes to use the existing electricity grid, and service laterals would be extended to the Project site from existing utility facilities along Boughton Drive and Airport Drive. It is anticipated that there are sufficient planned electricity supplies in the PG&E service area for the increase in energy demands resulting from the Project. Additionally, the Project would implement **Mitigation Measure MM 4.19-1**, requiring coordination with PG&E staff to determine specific requirements regarding any potential electric service or facility issues needed. The Project proponent would comply with and adhere to all requirements identified by PG&E to mitigate impacts to electric services and facilities. Thus, with mitigation, the Project would not require or result in the relocation or construction of new or expanded electric power facilities, the construction or relocation of which could cause significant environmental effects.

Minimal amounts of gasoline may be used for construction however, natural gas service is to be provided by PG&E once operational. Service laterals would be extended to the Project site from existing utility facilities along Boughton Drive and Airport Drive. The Project would implement **Mitigation Measure MM 4.19-2**, which requires coordination with PG&E to determine the specific requirements regarding any potential natural gas service or facility issues needed. The Project proponent would comply with and adhere to all requirements identified by PG&E to mitigate impacts to natural gas services and facilities. Therefore, the Project would not require or result in the relocation or construction of new or expanded natural gas facilities, the construction or relocation of which could cause significant environmental effects. Impacts would be less than significant.

Telecommunications

Cellular or satellite communication technology may be used for telephone systems during construction and operation. The Project would extend fiber lines to existing service laterals for internet access onto the Project site. No off-site telecommunications systems would be constructed; therefore, construction and operation of the Project would not cause significant environmental effects. Impacts would be less than significant.

Mitigation Measures

MM 4.19-1 Prior to issuance of grading and building permits the Project proponent shall coordinate with PG&E staff to determine the specific requirements regarding any potential electric service or facility issues needed to adequately accommodate the proposed Project. The Project proponent shall comply with and adhere to all requirements identified by PG&E to fully mitigate impacts to electric services and facilities, as needed as Project construction progresses.

MM 4.19-2 Prior to issuance of grading and building permits the Project proponent shall coordinate with Pacific Gas and Electric Company (PG&E) staff to determine the specific requirements regarding any potential natural gas service or facility issues needed to adequately accommodate the proposed Project. The Project proponent shall comply with and adhere to all requirements identified by Pacific Gas and Electric Company (PG&E) to fully mitigate impacts to natural gas services and facilities, as needed as Project construction progresses.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.19-1** and **MM 4.19-2**, impacts would be less than significant after mitigation.

Impact 4.19-2: The Project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years.

Project Water Demand

Water is assumed to be used during construction for pre-watering and grading. Construction water is considered a temporary use and will not occur at the same time as the other project water demands as its use will occur before the water systems are installed. For a standard 52-acre site, water use for pre-watering is approximately 1,000,000 gallons per day for 21 days and 350,000 gallons per day for 35 days for grading. Therefore, the construction water demand is approximately 102 AFY.

The Project's indoor water demand was determined using an employee-based water demand estimate. The number of warehousing employees was determined using the average of 1,500 square feet per warehouse employee from the 2016 Commercial Building Energy Consumption Survey published by the Energy Information Administration. The number of office employees was

determined using an industry standard of 200 square feet per office employee. The employee factors and the estimated warehouse and office areas were used to determine the total number of employees. This number of employees is expected to double under the assumption of three shifts a day, which yields 1,631 employees. Fixture rates from the Nonresidential Baseline Water Use Worksheet published by the California Green Building Standards Code were used to determine the average water use per employee. This value was determined to be approximately 10 gallons per day per employee, for 1,631 employees, with a total water use of 16,310 gallons per day, or 18 AFY.

The Project's landscaping irrigation water demand was determined using an area-based water demand estimate. Approximately 17% of the developed area (approximately 8.25 acres) was assumed to be landscaped. The nonresidential irrigation water use factor of 1.9 acre-feet per acre per year was taken from Chapter 2.7 of the 2015 California Code of Regulations Model Water Efficient Landscape Ordinance. The nonresidential water use factor and estimated landscaping area were used to determine the yearly landscaping irrigation demand. Therefore, the landscaping irrigation demand determined for the site is 12.6 AFY.

The total water demand for the Project is estimated to be 31 AFY. The Project water demands are not expected to change and shall remain the same at buildout and through the year 2040.

OMWC Projected Water Demand 2040

The land use method of projection was used by the OMWC in accordance with the 2020 UWMP Guidebook. The land use water use projection was prepared based on the Gossamer Grove, Heritage Ranch, and Mission Lakes Specific Plans for the City of Shafter as well as the anticipated growth in industrial development. **Table 4.19-4**, summarizes the projected water demands for the next 20 years in 5-year increments.

Table 4.19-4: Projected Water Use

Use Type	Annual Demands (acre-feet)			
	2025	2030	2035	2040
Single-Family Residential	6,950.5	8,877.6	11,707.1	14,280.6
Multifamily Residential	939.4	916.1	839.4	871.3
Commercial/Institutional	1,384.9	1,350.6	1,723.1	1,744.5
Industrial	239.7	241.1	242.5	244.6
Landscape Irrigation	212.1	206.8	212.1	238.5
Water Loss (Nonrevenue Water)	315.9	376.2	479.8	564.4
Surface Water Total	8,053.4	7,903	8,229	8,210
Groundwater Total	1,989	4,058	7,026	9,734
Total	10,042.4	11,961.1	15,254.9	17,943.9

Key: NORMWD = North of the River Municipal Water District; OMWC = Oildale Mutal Water Company

OMWC Projected Water Supply 2040

Per the contracted agreement with the NORMWD, the purchased surface water of 15,000 AFY is projected to remain the same. The OMWC is developing five additional irrigation wells to increase the supply volume to 15,000 gallons per minute. This will increase the groundwater supply to an estimated 12,802 AFY. The OMWC's groundwater supply is not anticipated to be impaired because of the SGMA compliance actions in the six aforementioned GSPs. Additionally, California law states municipal water rights and uses have a higher priority and are entitled to more protection than other uses of groundwater. **Table 4.19-5** summarizes the projected water supplies for the next 20 years in 5-year increments.

Table 4.19-5: Projected Water Supply

Water Supply	Source	Projected Water Supply, acre-feet			
		2025	2030	2035	2040
Purchased or Imported Water	NORMWD/KCWA	15,000	15,000	15,000	15,000
Groundwater (Reasonably Available Volume)	OMWC Wells	10,651	11,726	12,802	12,802
Total		25,651	26,726	27,802	27,802

Key: NORMWD = North of the River Municipal Water District; OMWC = Oildale Mutual Water Company

Table 4.19-6 presents the comparison of OMWC's supply and demand in normal years. Under normal hydrologic conditions, there is a surplus of water supply from the year 2025 to 2040. The surplus water supply volume is greater than 9,000 AF through the year 2040. The Project water demand is 31 AFY. In a normal year condition, the OMWC has more than enough water supplies to serve the Project's water demand.

Table 4.19-6: Normal Year Supply and Demand

	Annual Demands (acre-feet)			
	2025	2030	2035	2040
Supply Totals	25,651	26,726	27,802	27,802
Demand Totals	10,042.2	11,961.1	15,254.9	17,943.9
Difference	15,609	14,765	12,547	9,858

Table 4.19-7 presents the comparison of OMWC's supply and demand with a single dry year. Under this hydrologic condition, there is a surplus of water supply from the year 2025 to 2040. The surplus water supply volume is greater than 8,000 AF through year 2040. The Project water demand is 31 AFY. In a normal year with a single dry year condition, the OMWC has more than enough water supplies to serve the Project's water demand.

Table 4.19-7: Single Dry Year Supply and Demand

	Annual Demands (acre-feet)			
	2025	2030	2035	2040
Supply Totals	25,651	26,726	27,802	27,802
Demand Totals	10,544.5	12,559.2	16,017.6	18,841.1
Difference	15,107	14,167	11,784	8,961

Table 4.19-8 presents the comparison of OMWC's supply and demand with multiple dry years. Under the hydrologic condition with multiple dry years, there still exists a surplus of water from the year 2025 to 2040. The surplus water supply volume never decreases past 8,000 acre-feet even in the fifth dry year. This surplus exists from the year 2025 to year 2040. The Project water demand is 31 AFY. In the multiple dry years condition, the OMWC has more than enough water supplies to serve the Project's water demand.

Table 4.19-8: Multiple Dry Years Supply and Demand

		2025	2030	2035	2040
Year 1	Supply Totals	23,500	25,651	26,726	27,802
	Demand Totals	9,564	10,920	13,185	16,546
	Difference =	13,936	14,731	13,541	11,256
Year 2	Supply Totals	23,500	25,651	26,726	27,802
	Demand Totals	9,555	11,309	13,843	17,093
	Difference =	13,945	14,342	12,884	10,710
Year 3	Supply Totals	24,575	25,651	26,726	27,802
	Demand Totals	9,667	11,711	14,533	17,657
	Difference =	14,908	13,940	12,193	10,145
Year 4	Supply Totals	24,575	25,651	26,726	27,802
	Demand Totals	10,107	12,128	15,257	18,240
	Difference =	14,468	13,523	11,469	9,562
Year 5	Supply Totals	25,651	26,727	27,802	27,802
	Demand Totals	10,545	12,559	16,018	18,841
	Difference =	15,107	14,167	11,784	8,961

The analysis in the WSA demonstrates that the OMWC will have sufficient water supplies to serve the existing and future water uses of the area, including the Project, under normal, single dry, and multiple dry years.

Therefore, the OMWC would have sufficient water supplies available to serve the Project and near future development during normal, single dry, and multiple dry years. Furthermore, the Project

would implement **Mitigation Measures MM 4.19-3**, which requires the operator to provide information on any groundwater that will be used. Implementation of **Mitigation Measures MM 4.19-4** would also be required, which consists of installing water meters on all facilities. Potential impacts associated with water supply would be less than significant with mitigation.

Mitigation Measures

MM 4.19-3. Prior to issuance of building or grading permits, the owner/operator shall provide information on any groundwater that will be used. Unmetered water wells cannot be used as a source of groundwater for the permit activity. Groundwater may only be used in a permitted activity from a water well equipped with a water meter. A copy shall be sent to all Groundwater Sustainability Agencies and the Kern County Water Agency after being posted on the website. The information submitted on the permit shall include the following data:

- a. The source and estimated amount of any groundwater being used in the permit activity.
- b. Confirmation that any water well used in permit activity is metered.
- c. The source and estimated amount of any reclaimed water used in the permit activity.

MM 4.19-4. Water meters shall be installed on all facilities. Once operations of the first facility constructed on-site have commenced, the Master Developer or subsequent future land owners shall be required to submit annual reports to the Kern County Planning Department and the Kern County Environmental Health Services Department detailing the annual water usage on site.

Level of Significance after Mitigation

With implementation of **Mitigation Measures MM 4.19-3** and **MM 4.19-4**, impacts would be less than significant after mitigation.

Impact 4.19-3: The Project would result in a determination by the wastewater treatment provider which may serve the Project that it has adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

As previously described, the Project would be served by NORSD, where wastewater collection would be provided by the NORSD WWTP. The nearest sewer main is a 10-inch trunk sewer line that runs along Airport Drive, east of the Project site. The existing outfall sewer runs approximately 1.5 miles southwest of the Project site and discharges to the WWTP, which has a capacity of 7.5 MGD. The average monthly flow is between 5.4 and 5.9 MGD. Additionally, 13 capacity-related projects are proposed to improve NORSD facilities (NORSD 2023). Thus, the Project is not expected to increase the demand for wastewater treatment services beyond NORSD WWTP's

capacity. Furthermore, the Project proponent would be required to obtain a will-serve letter from NORSD before obtaining a building permit. The operation of the proposed facility is not expected to generate a significant amount of wastewater. Therefore, it is anticipated that there would be adequate capacity to serve the Project. Impacts would be less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance After Mitigation

Impacts would be less than significant.

Impact 4.19-4: The Project would generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste-reduction goals.

The Project would generate solid waste that would be disposed of by a permitted hauler at the Bena Landfill at 2951 Neumarkel Road approximately 16 miles southeast of the Project site. As of 2019, the Bena Landfill has a remaining capacity of 32,808,260 cubic yards of the maximum 53,000,000-cubic-yard capacity (CalRecycle 2019a). The permitted maximum daily disposal is 4,500 tons per day. The next closest landfill to the Project site is the Shafter-Wasco Landfill, approximately 21 miles northwest. As of 2019, the landfill can accept up to 1,500 tons per day, has a remaining capacity of 7,901,339, and a maximum permit capacity of 21,895,179 (CalRecycle 2019a).

Construction

The construction phase is anticipated to last approximately 24 months. Construction, for analysis within studies prepared for this Draft EIR, was originally analyzed to begin in December 2024 and conclude in November 2026, with operation proposed in 2026. Should the commencement of construction be delayed, December 2024 represents a conservative estimate for this document. Solid waste generated by the construction of the Project is not anticipated to be significant. Construction of the Project would not require demolition of existing structures, as the Project site is currently vacant. Nonhazardous construction refuse and solid waste would be either collected and recycled or disposed of at the Bena Landfill, the Shafter-Wasco Landfill, or another Class III landfill. Any hazardous waste generated during construction would be disposed of at an approved location. Vegetation collected from clearing and grubbing activities would be either disposed of through the City of Bakersfield's organics curbside collection service or self-hauled to a composting facility, community composting program, or other collection activity or program, as required by SB 1383. During the construction phase, waste materials will be recycled where feasible, with remaining unrecyclable materials disposed of in landfills in compliance with all applicable regulations including Kern County Building code requirements. Common construction waste may include metals, masonry, plastic pipes, rocks, dirt, cardboard, or green waste related to land development. The Project would not generate any acutely hazardous material, and any other hazardous waste (such as fuels, greases, and solvents) generated or used during construction would be disposed of at an approved facility.

Nonhazardous construction refuse and solid waste would either be collected and recycled, or disposed of at a local landfill, either the Bena Landfill or the Shafter-Wasco Landfill. SB 1374 requires that jurisdictions summarize their progress in diverting C&D waste from the waste stream in annual reports. A pricing incentive (for example, a premium gate fee for mixed C&D) is charged at the Bena, Shafter-Wasco, Taft, and Tehachapi Landfills to encourage the recycling of C&D waste. The Bena Landfill is the closest and has adequate capacity; therefore, it would most likely receive solid waste from the Project site. The Bena Landfill is a Class III landfill and, therefore, accepts wastes from C&D as well as industrial sources. The Project would implement **Mitigation Measure MM 4.19-5**, which requires that debris and waste generated shall be recycled to the extent feasible. Additionally, as part of compliance with CALGreen requirements, Kern County implements the following construction waste diversion requirements: submittal of a Construction Waste Management Plan and recycle and/or reuse a minimum of 65% C&D waste. Therefore, construction impacts of the Project on existing landfills are anticipated to be less than significant.

Operations

The Project would produce waste during operational activities, which would include typical refuse generated by office and warehouse uses. Most of these materials would be collected and delivered back to the manufacturer or to recyclers. Nonrecyclable waste would be placed in covered dumpsters and removed regularly by a certified waste-handling contractor for disposal at a Class III landfill. Based on CalRecycle's estimated solid waste generation rate for manufacturing and warehouse facilities, the Project is estimated to generate 30,340 pounds per day (CalRecycle 2019b); however, this serves as a conservative estimate as the primary operation of the facility will be warehousing and distribution of prepackaged goods, not manufacturing. As described above, the Bena Landfill is permitted to accept 4,500 tons of solid waste per day and has a remaining capacity of 32,808,260 cubic yards. The Bena Landfill is planned to continue operations through April 1, 2046, and is expected to serve the Project throughout its operational phase. Additionally, as described above, the Project would implement **Mitigation Measure MM 4.19-5**, which requires debris and waste generated shall be recycled to the extent feasible. Therefore, impacts related to landfill capacity would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.19-5** would be required.

MM 4.19-5. During construction and operation, debris and waste generated shall be recycled to the extent feasible. The provisions listed below shall apply to the Project:

- a. A Recycling Coordinator shall be designated by the project applicant to facilitate recycling as part of the Construction, Operation and Maintenance, and Decommissioning, Trash Abatement and Pest Management Program.
- b. The Recycling Coordinator shall facilitate recycling of all construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes.

- c. The Recycling Coordinator shall also be responsible for ensuring wastes requiring special disposal are handled according to State and County regulations that are in effect at the time of disposal.
- d. Contact information of the coordinator shall be provided to the Kern County Planning and Natural Resources Department prior to issuance of building permits.
- e. The project applicant shall provide a storage area for recyclable materials within the fenced project area that is clearly identified for recycling. This area shall be maintained on the site during construction and decommissioning. A site plan showing the recycling storage area for construction shall be submitted prior to the issuance of any grading or building permit for the site.

Level of Significance After Mitigation

With the implementation of **Mitigation Measure MM 4.19-5**, impacts would be less than significant after mitigation.

Impact 4.19-5: The Project would comply with Federal, State, and Local management and reduction statutes and regulations related to solid waste.

The Project would generate solid waste during the construction and operation of the two warehouses and office buildings. Common construction waste may include metals, masonry, plastic pipes, rocks, dirt, cardboard, or green waste related to land development. AB 341 requires Kern County to attain a waste diversion goal of 75% by 2020 through reduction, recycling, or composting. In addition, as part of compliance with CALGreen requirements, Kern County implements the following construction waste diversion requirements:

- Submittal of a Construction Waste Management Plan.
- Recycle, reuse, or both, a minimum 65% C&D waste.
- Recycle or reuse 100% of tree stumps, rocks, and associated vegetation and soils resulting from land clearing.

Furthermore, the California Solid Waste Reuse and Recycling Access Act of 1991, as amended, requires expanded or new development projects to incorporate storage areas for recycling bins into the Project design. The Project would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste. Additionally, the Project would implement **Mitigation Measure MM 4.19-5**, which requires recycling of debris and waste generated to the extent feasible. Compliance with the established regulatory framework would ensure less than significant impacts regarding compliance with management and reduction statutes and regulations related to solid waste, which would be further reduced by Mitigation Measure MM 4.19-5.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.19-5** would be required.

Level of Significance After Mitigation

With the implementation of **Mitigation Measure MM 4.19-5**, impacts would be less than significant after mitigation.

4.19.5 Cumulative Setting, Impacts, and Mitigation Measures

The Project's contribution to an increased need for utilities and service systems is considered in the context of other past, present, and reasonably foreseeable future projects in the area. The geographic scope of analysis for impacts on utilities and service systems includes projects within the service area for each utility provider described above, which includes demands on water supply, stormwater drainage, and solid waste disposal. The scope for impacts on water would be the OMWC District, and wastewater would be the service area of the NORSD WWTP. The scope for impacts on stormwater drainage would be the Project site, and the scope for impacts on solid waste disposal includes projects that rely on the same solid waste disposal facilities.

Project impacts would be cumulatively considerable if the incremental effects of the Project, when combined with other past, present, or reasonably foreseeable projects, as listed in Chapter 3, Project Description, would result in a significant cumulative effect. Physical impacts on public services, utilities, and service systems are usually associated with population in-migration and growth in an area, which increases the demand for a particular service, leading to the need for expanded or new facilities, thereby limiting the potential to contribute to the demand for a particular service.

As described above, the Project would result in less than significant impacts with mitigation on water, wastewater, stormwater drainage, electricity telecommunications, natural gas, and solid waste disposal (during construction and operation).

Water Supply

Various proposed projects within the region would further impact the existing water supply that is derived from the Kern County Subbasin. The Project and other cumulative projects could substantially decrease groundwater supplies; thus, this impact is considered potentially significant. The Project would obtain its water supply from the OMWC and has secured a will-serve letter at the time of this writing (Appendix H.3). The WSA completed for the Project determined that there are sufficient supplies for both Project construction and operation. Other projects in the vicinity would be required to comply with applicable Kern County Development Standards and to be approved by the Kern County Public Works Department. Furthermore, the Project would implement **Mitigation Measure MM 4.19-3**, which requires the operator to provide information on any groundwater that will be used by the Project. Implementation of **Mitigation Measure MM 4.19-4** would also be required, which consists of installing water meters in all facilities. However, the basin is currently overdrafted, and the District's GSP has been deemed inadequate along with the other Kern subbasin plans where other similar known and unknown projects could occur. Thus, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible and reasonable mitigation.

Wastewater

NORSD has two improvement projects planned to accommodate growth in the NORSD service area. Given NORSD's planned improvement projects, which would add capacity of 12 MGD and 18 MGD, and the buildout dates of the Project, the cumulative impact on NORSD WWTP's capacity would be less than significant. A will-serve letter has been secured from the NORSD indicating the Project can be served by the District and demonstrates the Project's incremental contribution to wastewater services would be less than cumulatively considerable (Appendix H.3). Depending on the facilities proposed to be built by these projects, other cumulative projects in the vicinity would be required to comply with similar regulations and policies regarding wastewater, thus minimizing impacts. Therefore, cumulative impacts related to wastewater would be less than significant.

Stormwater Drainage

The Project would be required to retain the stormwater per Kern County's drainage requirements and all other applicable standards. On-site detention basins would be designed to accommodate a 100-year storm event and would detain runoff and release it at a rate no greater than the pre-development condition of the Project site. Additionally, the development of a SWPP is required (see Section 4.10, *Hydrology and Water Quality*), and a hydrologic study and final drainage plan would be created that would detail engineering design measures to manage stormwater flows and reduce potential increases in stormwater runoff to off-site areas. Other projects in the vicinity would be required to offset substantial increases in stormwater per County requirements, implement best management practices, and comply with the NPDES General Construction Permit and their respective SWPPP as applicable. Therefore, the Project would not contribute to a cumulatively considerable impact related to stormwater drainage.

Electric Power

Electric power for the construction and operation of the Project would be brought to the site through a PG&E service connection. The Project would connect to existing infrastructure, and the operation of the Project would be consistent with the planned electricity demand; therefore, the Project would not require PG&E to construct any new physical improvements related to the provision of electricity service. Furthermore, in compliance with **Mitigation Measure MM 4.19-1**, before issuance of grading and building permits, the Project proponent shall coordinate with PG&E staff to determine the specific requirements regarding any potential electric service or facility issues needed to adequately accommodate the Project. The project Proponent shall comply with and adhere to all requirements identified by PG&E to mitigate impacts to electric services and facilities as needed. As such, the Project would not contribute to a cumulatively considerable impact related to electricity facilities.

Natural Gas

PG&E would provide natural gas service to the Project site. The Project would include the connection to an existing gas line. Implementation of **Mitigation Measure MM 4.19-2** would require the Project proponent to coordinate with PG&E staff to determine the specific requirements

regarding any potential natural gas service or facility issues needed to adequately accommodate the Project. The Project proponent shall comply with and adhere to all requirements identified by PG&E to fully mitigate impacts to natural gas services and facilities, as needed as Project construction progresses. With the implementation of **Mitigation Measure MM 4.19-2**, the Project's incremental contribution to natural gas impacts would be less than cumulatively considerable. Furthermore, other cumulative projects would also be required to comply with State and local policies.

Telecommunications

The Project in combination with cumulative projects would increase the demand on telecommunication facilities. However, demand associated with the Project and other cumulative development would be minimal and is expected to be within the planning forecasts of the affected telecommunications provider. Therefore, cumulative impacts related to telecommunications facilities would be less than significant.

Solid Waste

The Project would generate solid waste during construction and operation; however, existing landfills have capacity to accommodate solid waste generated by the Project, and the Project would comply with all regulations related to solid waste. Impacts would be less than significant. Implementation of **Mitigation Measure MM 4.19-5** would further reduce the quantity of material destined for disposal at local landfills. As such, the Project's contribution to this cumulative impact would be less than significant. Similar to the Project, other planned projects are expected to comply with State and local waste-reduction policies. Therefore, the Project is not expected to result in a cumulative impact on Kern County landfills.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.19-1** through **MM 4.19-5** would be required.

Level of Significance After Mitigation

With the implementation of **Mitigation Measures MM 4.19-1** through **MM 4.19-5**, cumulative impacts would be significant and unavoidable for water supply after mitigation.

Section 4.20

Wildfire

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4.20.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting regarding wildfire. It also evaluates the impacts on wildfire that would result from the implementation of the proposed IPG Industrial Project (Project), and identifies mitigation measures that would reduce these impacts, if necessary.

This section is informed by the 2023 Biological Resources Assessment prepared by Dudek (Appendix C), Project plans, the California Department of Forestry and Fire Protection (CAL FIRE), and Kern County Fire Hazards Severity Zone (FHSZ) maps.

4.20.2 Environmental Setting

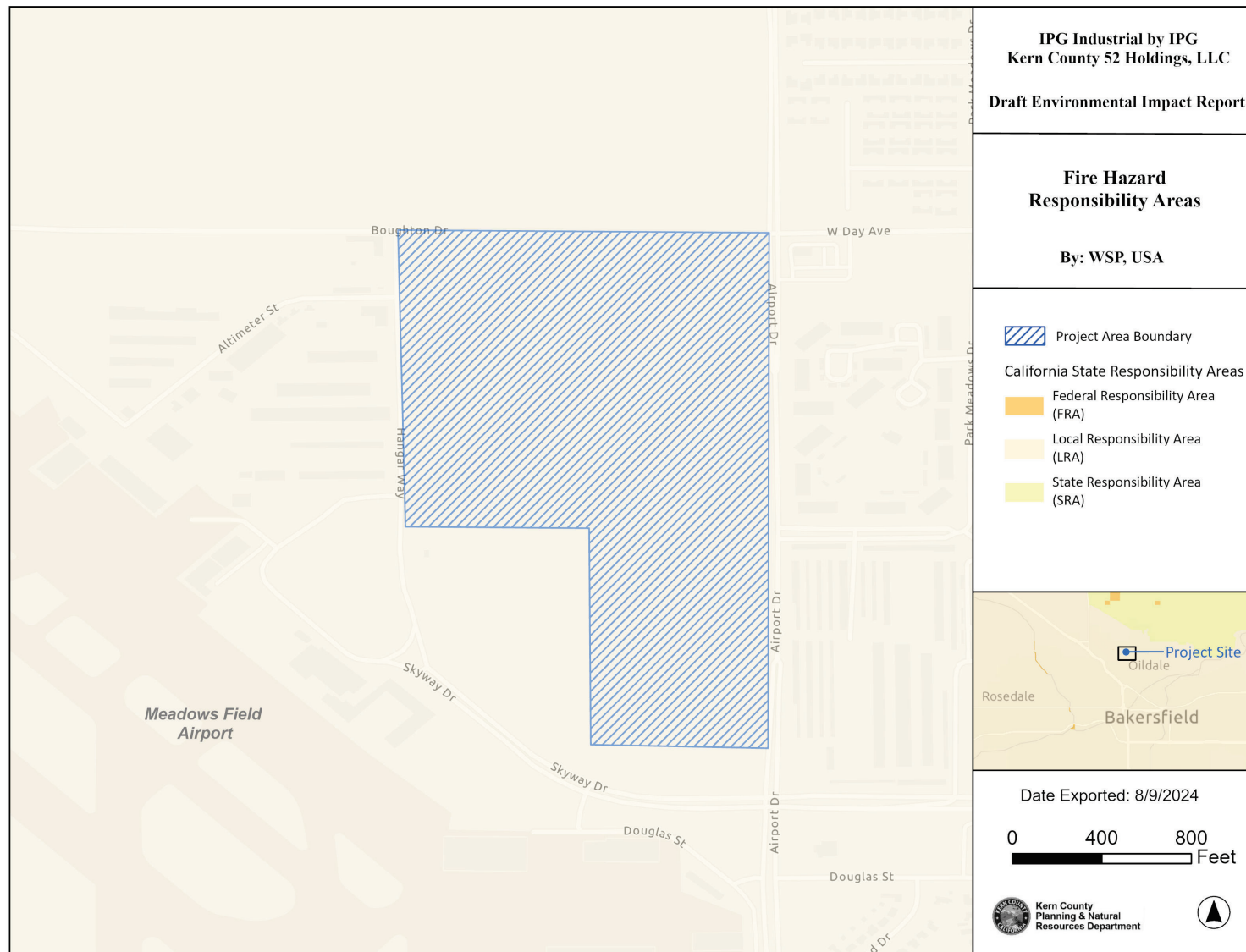
Site Characteristics and Fire Environment

The Project site is currently undeveloped. Based on the Biological Resources Assessment (Appendix C), the 49.05 acres of the Project site are predominantly non-native grassland. Non-native grassland habitat is grassland that is dominated by non-native species. These grasslands typically occur in areas with a history of disturbance. Historically, the site has been routinely disked yearly for fire and weed control. The Project vicinity is characterized by industrial and commercial uses (for example, distribution, storage, and shipping centers), transportation, vacant land, and residential uses to the east of the Project site.

CAL FIRE provides FHSZ maps based on factors such as fuel, slope, and fire weather to identify the degree of fire hazard throughout California (such as, moderate, high, or very high). While FHSZs do not predict when or where a wildfire will occur, they do identify areas where wildfire hazards could be more severe, and therefore, greater potential damage. According to the FHSZ map published by CAL FIRE, the Project is located approximately 1.10 miles away from a high FHSZ in a state responsibility area (SRA). However, the Project site is located within a Local Responsibility Area (LRA) (CAL FIRE 2024a) (**Figure 4.20-1**). According to the 2007 CAL FIRE, Kern County FHSZ Maps for the LRAs, the Project site is classified as LRA “Moderate” and LRA “Unzoned” (CAL FIRE 2007).

Moderate zones are typically wildland-supporting areas of low fire frequency and relatively modest fire behavior. An Unzoned designation indicates that the area is urbanized and not susceptible to wildland conflagrations.

Figure 4.20-1: Fire Hazard Responsibility Areas



Regional Wildfire Conditions

Kern County (the County) encompasses the southern portion of the Central Valley floor and is bound to the west by the southern slopes of the coastal mountain ranges and to the east by the southern slopes of the Sierra Nevada. Both mountain ranges are surrounded by and intermingled with areas highly susceptible to wildfires such as steep, hilly areas covered by grass and woodlands. Wind also represents a factor that influences the spread of wildfire (KCFD 2020b).

Fire History

Fire history information provides an understanding of fire frequency, fire type, most vulnerable Project areas, and significant ignition sources. CAL FIRE's Incident Map fire history represents active and prior incidents (CAL FIRE 2024b). Based on a review of these maps, no fires in the recorded history have burned across the Project site.

Vegetation (Fuels)

Based on the Biological Resources Assessment (Dudek 2023), the vegetative type across most of the Project site (approximately 49.05 acres) is considered *Avena* spp. – *Bromus* spp. alliance. This general habitat is grassland dominated by non-native species, typically in areas with a history of disturbance. Annual brome grasses and wild oat grassland dominate the plant species composition, and native annual forbs constitute a significant cover. Of the 24 plant species observed at the Project site, 33% are native plant species and 67% are non-native plant species. The current landowner has routinely disked the Project site for the past three years to control fire and weeds; the previous landowner also disked the Project site annually.

4.20.3 Regulatory Setting

Federal

There are no federal wildfire regulations applicable to this Project.

State

2022 California Fire Code

The 2022 California Fire Code (Title 24, Part 9 of the California Code of Regulations) establishes regulations to safeguard against the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises. The fire code also establishes requirements intended to provide safety for and assistance to firefighters and emergency responders during emergency operations. The provisions of the fire code apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal, and demolition of every building or structure throughout California. Chapter 6 (Building Services and Systems) of the California Fire Code focuses on building systems and services as they relate to potential safety hazards and when and how they should be installed. Building services and

systems are addressed and include emergency and standby power systems, electrical equipment, wiring and hazards, and stationary storage battery systems. Chapter 33 (Fire Safety During Construction and Demolition) of the code outlines general fire safety precautions to maintain required levels of fire protection, limit fire spread, establish the appropriate equipment operation, and promote prompt response to fire emergencies. The fire code includes regulations regarding fire-resistance-rated construction; fire protection systems, such as alarm and sprinkler systems (for inhabited structures); fire service features, such as fire apparatus access roads; means of egress; fire safety during construction and demolition; and wildland-urban interface areas.

2022 California Building Code, Chapter 7A

Chapter 7 of the 2022 California Building Code details the materials, systems, and assemblies used in the exterior design and construction of new buildings within a Wildland-Urban Interface Fire Area. A Wildland-Urban Interface Area is defined in Section 702A as a geographical area identified by the state as an FHSZ, in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at significant risk from wildfires. The building code details the materials, systems, and assemblies used for structural fire resistance and fire-resistance-rated construction separation of adjacent spaces to safeguard against the spread of fire and smoke within a building and the spread of fire to or from buildings.

Public Resources Code 4291–4299

California Public Resources Code Section 4291-4299 et seq. requires that brush, flammable vegetation, or combustible growth within 100 feet of buildings be maintained. Vegetation that is more than 30 feet from the building, less than 18 inches high, and important for soil stability, may be maintained; as may single specimens of trees or other vegetation that is maintained to manage fuels and not form a means of rapid-fire transmission from other nearby vegetation to a structure. Additionally, the Public Resources Code outlines infraction fees, certification, and compliance procedures applicable to state and local building standards, including those described in subdivision (b) of Section 51189 of the Government Code.

Local

Metropolitan Bakersfield General Plan

The Project is located within the Metropolitan Bakersfield General Plan (MBGP) planning area and, therefore, is subject to policies and measures of the MBGP. The Safety Element of the MBGP contains goals, policies, and implementation measures related to wildfire and apply to the Project, which are listed below.

Chapter VIII. Safety Element

Goals

Goal 1: Ensure that the Bakersfield metropolitan area maintains a high level of public safety for its citizenry.

Goal 2: Ensure that adequate police and fire services and facilities are available to meet the needs of current and future metropolitan residents through the coordination of planning and development of metropolitan police and fire facilities and services.

Goal 3: Provide for the coordinated planning and development of service areas for police and fire protection to ensure an equitable burden of responsibility between County and City in Metropolitan Bakersfield.

Goal 4: Assure that fire, hazardous substance regulation and emergency medical service problems are continuously identified and addressed in a proactive way, in order to optimize safety and efficiency.

Policies

Policy 2: Require discretionary Projects to assess impacts on police and fire services and facilities. Project.

Policy 4. Monitor, enforce and update as appropriate all emergency plans as needs and conditions in the planning area change, including the California Earthquake Response Plan, the Kern County Evacuation Plan, and the City of Bakersfield Disaster Plan.

Policy 6: Promote fire prevention methods to reduce service protection costs and costs to the taxpayer.

Kern County Community Wildfire Protection Plan

The Kern County Community Wildfire Protection Plan (CWPP) was developed in response to the federal Healthy Forests Restoration Act. The CWPP addresses hazards and risks of wildland fire throughout the County and makes recommendations for fuel reduction projects, public outreach and education, structural ignitability reduction, and fire response capabilities. The goal of the CWPP, adopted in March 2022, is to enable local communities to improve their wildfire-mitigation capacity, identify high fire-risk areas, and prioritize areas for mitigation, fire suppression, and emergency preparedness. The CWPP enhances public awareness by helping residents better understand the natural- and human-caused risk of wildland fires (SWCA 2022).

Kern County Emergency Operations Plan

The Kern County Emergency Operations Plan (EOP), adopted on May 1, 2022, is an all-hazards document that provides for the integration and coordination of planning efforts of the County with those of its cities, special districts, and the State region. The purpose of the EOP is to provide the basis for a coordinated response before, during, and after a disaster affecting the County or other

jurisdictions in the EOP's Operational Area. The EOP establishes policies, stipulates an emergency management organization, and assigns roles and responsibilities to ensure the effective management of emergency operations. The EOP also identifies sources of external support that might be provided through mutual aid and specific statutory authorities by other jurisdictions, State and federal agencies, and the private sector (Kern County OES 2022).

Kern County Multi-Jurisdiction Hazard Mitigation Plan

The purpose of the multi-hazard mitigation plan is to reduce or eliminate the long-term risk to people and property from natural hazards and their effects in the County. The 2019-20 Update to the Plan is to help Kern County become less vulnerable to losses from future disasters. Hazard mitigation is the use of sustained, long-term actions to reduce the loss of life, personal injury, and property damage that can result from a disaster. The multijurisdictional plan includes the County and the incorporated municipalities of Arvin, Bakersfield, California City, Delano, Maricopa, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. The County also encompasses areas of land controlled by federal and State land management agencies, including the CAL FIRE, Bureau of Land Management, and Bureau of Reclamation. While other levels of government have jurisdiction in these parts of the County, the Hazard Mitigation Plan could also be used to document and coordinate mitigation efforts among federal, State, and local jurisdictions. This plan also covers 49 special districts that include school, airport, community service, water, recreation and park, sanitation, and other districts.

The plan also defines and discusses local conditions relating to wildfires. Applicable plans and policies described in the plan include Healthy Forests Restoration Act (2003), California Fire Code (2016), California Building Standards Code (2019), Hazardous Environmental Conditions in Kern County Code, §17.32, and Required Operational Permits in Kern County Code, §17.32. Historic wildfire events along with recent large wildfire events within the County are also documented. The severity and extent of wildfire hazards, warning time, secondary hazards, and climate change impacts are discussed in the plan. The plan also analyzes vulnerabilities to wildfire in terms of population, property, and infrastructure.

Kern County Fire Code

Chapter 17.32 of the Kern County Municipal Code details the Kern County Fire Code, which is an adoption of the 2022 California Fire Code with some amendments. The purpose of the County's fire code is to regulate the safeguarding of life, property, and public welfare to a reasonable degree from the hazards of fire, hazardous materials release, or explosion due to handling of dangerous and hazardous materials; conditions hazardous to life or property in the occupancy and use of buildings and premises; the operation, installation, construction, and location of attendant equipment; the installation and maintenance of adequate means of egress; and providing for the issuance of permits and collection of fees.

Kern County Fire Department – Ready, Set, Go!

The Kern County Fire Department (KCFD) offers the Ready, Set, Go! Wildfire Action Plan, which provides guidance for evacuation during a wildfire event. The plan also describes processes to

prepare property for wildfires and to improve property survival during a wildland fire. The publication defines defensible space as the required clearance between a structure and natural vegetation that provides firefighters with the room they need to defend the structure and describes how individuals can create this buffer (KCFD 2020b).

Lake Isabella Dam Failure Evacuation Plan

The Lake Isabella Dam Failure Evacuation Plan was developed and is maintained by the Kern County/Operational Area Office of Emergency Services. It provides the basic framework for response to an actual or potential failure of the Lake Isabella Dam, in accordance with the requirements of the Dam Safety Act (Government Code [GC] § 8589.5). The plan describes the specific actions to be taken by various response organizations and establishes a process and procedures for the mass evacuation and short-term support of populations at risk below the Dam. The plan defines evacuation routes within the County, separated into zones: North, Northwest, Southwest, Southeast, and Central. The North Zone indicates to travel north on the nearest major street, Airport Drive, North Chester or Manor Street to Merle Haggard Drive (Kern County Fire Department 2009).

4.20.4 Impacts and Mitigation Measures

Methodology

Wildfire impacts are considered on the basis of (1) off-site wildland fires that could result due to the Project, and (2) on-site generated combustion that could affect surrounding areas. The Project's potential impacts associated with wildfires have been evaluated using a variety of resources, including CAL FIRE maps showing FHSZs, CAL FIRE's Fire and Resource Assessment Program, and fire history and vegetation data from the Biological Resources Assessment (Dudek 2023), Project location maps, and Project characteristics. Using the aforementioned resources and professional judgment, impacts were analyzed according to the California Environmental Quality Act (CEQA) significance criteria described below.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify the following criteria, as established in Appendix G of the CEQA Guidelines, to determine whether a Project could potentially have a significant impact with respect to wildfires. A Project would have a significant impact with respect to wildfires if it would be located in or near SRAs or lands classified as very high FHSZ, and if that project would:

- Substantially impair an adopted emergency response plan or emergency evacuation plan.
- Exacerbate wildfire risks, due to slope, prevailing winds, or other factors, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

- Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.
- Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Project Impacts

Impact 4.20-1: The Project would substantially impair an adopted emergency response plan or emergency evacuation plan.

The Project site is not classified as being within, or near (approximately 20 miles away) from a very high FHSZ, however, is located approximately 1.10 miles from a high FHSZ. As indicated above, the Project site falls within plans such as KCFD's Ready, Set, Go! Plan, which provides guidance for evacuation during a wildfire event (KCFD 2020b), as well as the County's EOP, which identifies an emergency management program, provides standard operating procedures, and provides for public awareness and education (Kern County 2022). The above emergency response plans provide guidelines on emergency preparedness and outlines the responsibilities of all agencies during an emergency, however, do not identify evacuation routes. Thus, the Project would not impair adopted emergency plans identified above, and is not within a very high FHSZ. Additionally, the Project would adhere to any applicable guidelines set forth in the plans and not conflict with the processes or procedures outlined by the plans.

Construction

The Project site contains five access driveways along Airport Drive (east of Project site), where Airport Drive extends north to intersect at Merle Haggard Drive, roughly 0.5 miles north of the Project site. Airport Drive is an established evacuation route. The project would not require permanent roadway closures, including Airport Drive. However, temporary closures could occur during construction.

Project construction also could inhibit access by emergency vehicles, heavy construction-related traffic could interfere with emergency response or emergency evacuation procedures in the event of an emergency, such as a wildfire, dam failure, or a chemical spill. This would be addressed through the preparation of a Construction Traffic Control Plan, ensuring that roadways surrounding the Project site are not impeded during construction, and emergency access is maintained to the area (see **Mitigation Measure MM 4.17-4** in Section 4.17, *Transportation and Traffic*). This Construction Traffic Control Plan must at minimum, address ensuring emergency access, temporary lane closures, minimizing construction traffic during the a.m. and p.m. peak hours, and must be consulted with the County to develop coordinated plans for vehicle routing and detours. Through implementation of **Mitigation Measure MM 4.17-4**, emergency access would be maintained at all times during construction, and appropriate detours would be provided, as necessary. Also, in compliance with applicable Fire Code and Building Code requirements, construction managers and personnel would be trained in fire prevention and emergency response.

Therefore, construction of the Project would have less than significant impacts on impairment to emergency or evacuation plans. Impacts would be less than significant.

Operations

During operations, the Project would generate 1,430 vehicle trips per day (Section 4.17, *Transportation and Traffic*). To ensure operational traffic associated with the Project would not impair an emergency response plan or conflict with an emergency evacuation plan, **Mitigation Measure MM 4.17-1** would require the project applicant to construct intersection improvements to reduce traffic delay. Any additional improvements would be addressed through Transportation Traffic Impact Fees required by **Mitigation Measure MM 4.17-2**. To further reduce congestion at intersections, **Mitigation Measure MM 4.17-3** would require the preparation of a Transportation Demand Management program to reduce VMT associated with employee trips. Additionally, the Project is required to maintain Kern County Public Works Department development standards, off-site improvements are required. This includes right-of-way dedication on Airport Drive, Boughton Drive, and Hanger Way. In addition to right-of-way dedication, the road would require right-turn channelization and drive approach of 35 feet with a median along Airport Drive project frontage. Boughton Drive and Hanger Way would require a 45-foot half-width collector. These improvements would ensure operational traffic from the Project would not conflict with vehicular circulation or emergency access along local roadways, including during emergency evacuations. Thus, operation of the Project would not result in the impairment of an adopted emergency response plan or emergency evacuation plan and, thus, impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.17-1, MM 4.17-2, MM 4.17-3 and 4.17-4** in Section 4.17, *Transportation and Traffic*, would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.17-1, MM 4.17-2, MM 4.17-3 and 4.17-4**, impacts would be less than significant after mitigation.

Impact 4.20-2: The Project would, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire.

Slope and wind speed can influence the rate of which wildfire spreads. The Project site is described as relatively flat with a gentle northeasterly slope for a topographical relief of 50 feet. A 50-foot topographical relief across approximately 50 acres does not constitute a steep slope, as the gradient does not exceed 30%. Therefore, the Project is not anticipated to expose Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to sloping topography.

The nearest very high FHSZ is roughly 20 miles east of the Project, and the nearest high FHSZ is approximately 1.10 miles northeast of the site (CAL FIRE 2024a). Per wind rose plots for the city of Bakersfield (located south of the Project site), prevailing winds in August are typically blown from the southeast toward the northwest. By this measure, wildfires in the FHSZ (located northeast of the site) are anticipated to prevail northwest, away from the Project site (Western Regional Climate Center 2024). It is unlikely for wildfire to spread southwest from winds because the Project site is located near development. Development includes residential areas to the north and east and undeveloped vacant land to the north. There is a level of risk for wildfire due to the comingling of structures and vegetation fuels on vacant land surrounding the site. In the event of a wildfire once the facility is operational, the employees associated with the Project (437 employees over the course of three shifts) would rapidly evacuate at the time of the event or well in advance of an approaching wildfire in conformance with applicable County evacuation directives. As discussed in the Kern County Multi-Jurisdiction Hazard Mitigation Plan, dry weather may trigger wildfire events. Severe weather can be predicted, so special attention can be paid during weather events including lightning or wind events. Reliable National Weather Service lightning warnings are available on average of 24 to 48 hours prior to a significant electrical storm. Fire alerting is expected to be reasonably rapid, allowing employees time to be properly evacuated in such events. Such measures would ensure that the exposure of Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire from prevailing winds would be minimized to the extent feasible.

Because of the existing and proposed conditions, the potential for wildfire on the Project site is considered low. The Project site is located on relatively flat terrain and is not within a high or very high FHSZ. Therefore, the construction and operation of the Project would not, due to slope, prevailing winds, and other factors, exacerbate the risk of wildfire. The Project would not expose occupants to pollutant concentrations from a wildfire or uncontrolled wildfire. Additionally, Project construction would comply with applicable existing codes and ordinances related to the maintenance of mechanical equipment, handling and storage of flammable materials, and cleanup of spills of flammable materials. Prior to issuance of grading or building permits, the Project proponent would also develop and implement a Fire Safety Plan, as required by **Mitigation Measure MM 4.9-11** (Section 4.9, *Hazards and Hazardous Materials*). Impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.9-11** (Section 4.9, *Hazards and Hazardous Materials*) would be required.

Level of Significance After Mitigation

With the implementation of **Mitigation Measure MM 4.9-11**, impacts would be less than significant after mitigation.

Impact 4.20-3: The Project would require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment.

Development would include the construction of two single-story buildings. Building 1 would total 655,690 square feet and Building 2 would total 267,440 square feet for a combined total of 923,130 square feet (including 15,000 square feet for dedicated office space). Development would also include related site improvements on 49.05 acres of privately owned land. The proposed Project would include off-site improvements along Boughton Road, Airport Road, and Hanger Way, adjacent to the Project site. Thus, this impact is considered potentially significant with the installation of new infrastructure that may exacerbate fire risk. The existing roads would be improved with new pavement, curbs and gutters, and sidewalks as well as right-of-way dedication on Airport Drive, Boughton Drive, and Hanger Way. In addition to right-of-way dedication, the road would require right-turn channelization and drive approach of 35 feet with a median along Airport Drive project frontage. Boughton Drive and Hanger Way would require a 45-foot half-width collector. All roadway improvements would comply with applicable Kern County Public Works Department development standards, and all off-site roadway work would be located in areas designated LRA Moderate and LRA Unzoned, where areas are either of low fire frequency or not susceptible to wildland conflagrations, respectively. Additionally, operation and maintenance associated with the above-mentioned infrastructure would adhere to County public road standards and County code.

Most fires in the dry valley areas and foothills are caused by lightning strikes on electrical systems (such as transmission lines) or vehicles. The installation of off-site electrical systems is not part of the Project and, therefore, would not result in increased fire risks that could result in temporary or ongoing impacts on the environment. Improvements to existing access roads would not be placed within a HFSZ as there are no such zones within the Project site, and vegetation would be cleared to reduce the available fuel load and create a defensible space; therefore, the Project would not result in increased fire risks that could result in temporary or ongoing impacts on the environment. Additionally, as discussed in Section 4.9, *Hazards and Hazardous Materials*, prior to issuance of grading or building permits, the Project proponent would also develop and implement a Fire Safety Plan, as required by **Mitigation Measure MM 4.9-11**. Project implementation of this mitigation measure would ensure that potential wildfire impacts related to installation or maintenance of associated infrastructure is reduced; therefore, impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.9-11** (Section 4.9, *Hazards and Hazardous Materials*) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.9-11**, impacts would be less than significant after mitigation.

Impact 4.20-4: The Project would expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Vegetation loss due to wildfires can exacerbate landslide risk by destabilizing slopes. In the event that a significant wildfire was to burn in nearby areas, the Project site may be exposed to potential risks associated with landslides, flooding, and/or debris flow in the weeks, months, and years following the fire as a result in changes to the vegetative cover of the land and the rain absorption capacity of the soil. As indicated above, the Project site is located on relatively flat topography and within a Moderate and Unzoned LRA. Conditions for landslides are not present at the Project site, which is characterized by relatively gradual inclines across the site, as described in Section 4.7, *Geology and Soils*. Additionally, there are no areas classified as High FHSZs or areas prone to fires immediately adjacent to the Project site. As previously described, the nearest High FHSZ is located approximately 1.10 miles northeast of the site in a primarily residential area at an elevation of approximately 630 feet. Based on the nature and relatively flat topography of the area and because the area is not located on a hillside above the site, the Project site is not expected to experience impacts from landslides or runoff. CAL FIRE's Incident Map also records no fire events in the areas nearby the Project site (CAL FIRE 2024b). Additionally, the Project site has been routinely disked annually for fire and weed control by the current landowner for the last three years and the landowner before. Therefore, nearby areas are not expected to experience wildfires that would result in landslides or runoff that would expose people or structures to significant risks at the Project site. Thus, the Project is not anticipated to expose people or structures to downslope or downstream flooding or landslides as a result of post-fire slope instability.

Based on the fire history immediately surrounding the site, moderate FHSZ designation, and terrain, there is a low potential for the Project site to be at risk of post-fire slope instability or drainage changes. Therefore, the Project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Thus, impacts would be less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance After Mitigation

Impacts would be less than significant.

4.20.5 Cumulative Setting, Impacts, and Mitigation Measures

Cumulative Setting

Cumulative impacts are two or more individual impacts that, when considered together, are considerable or that compound or substantially increase other environmental impacts. Cumulative impacts for a project are considered significant if the incremental effects of the individual projects are considerable when viewed in connection with the effects of past projects, and the effects of other projects located in the vicinity of the Project site. The geographic scope for cumulative impacts of wildfire is the planning area within the MBGP. This geographic scope was selected because the land within the region possesses relatively similar features and uses, including industrial and commercial uses (for example, distribution, storage, and shipping centers), transportation, vacant land, and residential uses. As shown in Chapter 3, *Project Description*, the area includes a variety of commercial and industrial developments. These have the potential to result in cumulative impacts to wildfire when considered together with the Project. However, the Project is not within an SRA or a very high or high FHSZ.

With regard to impairment of an adopted emergency response plan or emergency evacuation plan, all of the related Projects would be required to provide adequate emergency access in accordance with County fire and building code requirements (or similar codes/requirements in accordance with the applicable jurisdiction within Kern County) and prior to the issuance of a building permit. Project Regional access to the Project site is provided by SR-99 and Merle Haggard Drive via Airport Drive. As previously discussed, the Project site is not classified as being within a very high or high FHSZ and would comply with fire code and building code requirements including fire prevention and emergency response training for site personnel. As concluded in the discussion of Project impacts above, the Project would have a less than significant impact related to impairment of an adopted emergency response or evacuation plan. Similar to the Project, related Projects would be required to determine whether they are classified as being within a high FHSZ, identified within an emergency evacuation route or within an adopted emergency evacuation plan, and whether they meet the requirements of applicable fire code and building code. Therefore, the Project and related Projects are expected to result in a less than significant cumulative impact to an adopted emergency response plan or emergency evacuation plan.

Regarding cumulative impacts related to exposure of Project occupants to pollutant concentrations from a wildfire, while the Project is not within an LRA, SRA, or Federal Responsibility Area identified as having substantial or very high fire risk, some related Projects in the area may be. Similar to the Project, all related projects would be required to implement building and landscape design features in accordance with the fire code and building code to reduce wildfire risk and exposure of occupants to pollutant concentrations from a wildfire. Adherence to the fire code and building code requirements as well as implementation of Countywide plans, including the KCFD Strategic Fire Plan, the Kern County CWPP, the Kern County EOP, and the Kern Multi-Jurisdiction Hazard Mitigation Plan, in nearby cities and throughout the adjacent unincorporated areas would minimize potential impacts related to exposure to and the uncontrolled spread of a wildfire. As concluded in the discussion of Project impacts above, the Project would have a less

than significant impact related to exposure of Project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Additionally, prior to issuance of grading or building permits, the Project would also be required to develop and implement a Fire Safety Plan, as required by **Mitigation Measure MM 4.9-11** (see Section 4.9, *Hazards and Hazardous Materials*). Therefore, the Project and related Projects are expected to result in a less than significant cumulative impact related to exposure of Project occupants to pollutant concentrations from a wildfire.

Related Projects may require associated infrastructure such as roads, fuel breaks, and power lines that could exacerbate fire risk or that may result in temporary or ongoing impacts on the environment. The County would review these projects for land use and zoning consistency and compliance with applicable requirements and analyze them for environmental impacts. The placement of infrastructure would adhere to all fire codes to minimize the potential fire risk such as siting and design. Additionally, prior to issuance of grading or building permits, the Project would also be required to develop and implement a Fire Safety Plan, as required by **Mitigation Measure MM 4.9-11**, (Section 4.9, *Hazards and Hazardous Materials*). Therefore, the Project and related Projects are expected to result in a less than significant cumulative impact related to the installation or maintenance of associated infrastructure.

Some related Projects could be proposed in areas that could expose people or structures to risks from downslope or downstream flooding or landslides as a result of post-fire slope instability. Based on the recent fire events in California, all Projects would be required to adhere to the County's zoning and land use designations and codes (or those of the applicable jurisdiction within Kern County), state and local fire codes, and regulations associated with drainage and site stability. These regulations, policies, and codes would reduce the potential for exposing people or structures to risks from downslope or downstream flooding or landslides as a result of post-fire slope instability. Each Project would require site-specific hydrology and drainage studies for effective drainage design. Therefore, the Project and related Projects are expected to result in a less than significant cumulative impact related to exposing people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.9-11** (Section 4.9, *Hazards and Hazardous Materials*) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.9-11**, cumulative impacts would be less than significant after mitigation.

Consequences of Project Implementation

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Consequences of Project Implementation

5.1 Environmental Effects Found to Be Less Than Significant

According to Section 15128 of the California Environmental Quality Act (CEQA) Guidelines, an Environmental Impact Report (EIR) must “contain a statement briefly indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR.”

Kern County has engaged the public in scoping the environmental document for the proposed IPG Industrial Project (Project). Comments received during scoping have been considered in identifying issue areas that should receive attention in the EIR. The contents of this Draft EIR were established based on an Initial Study (IS)/Notice of Preparation (NOP) prepared following the CEQA Guidelines and on public and agency input received during the scoping process. Issues found to have no impact or less than significant impacts during the preparation of the IS/NOP do not need to be addressed further in this Draft EIR; no issues were excluded from analysis in the Draft EIR. The Draft EIR must include a comprehensive analysis of the environmental issue areas identified in Appendix G of the CEQA Guidelines.

After further study and environmental review, as documented in this Draft EIR, direct, indirect, and cumulative impacts of the Project would be less than significant or could be reduced to less than significant levels with mitigation measures for the following issue areas:

- Aesthetics and Visual Resources
- Agriculture
- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use Planning
- Mineral Resources
- Population and Housing
- Public Services
- Recreation
- Transportation and Traffic
- Tribal Cultural Resources
- Wildfire

5.2 Significant Environmental Effects That Cannot Be Avoided

Section 15126.2(b) of the CEQA Guidelines requires EIRs to describe any significant impacts, including those that can be mitigated but not reduced to less than significant levels. Chapter 4 of this Draft EIR discusses the Project's potential environmental effects and proposed mitigation measures.

Table 5-1 summarizes impacts on resources that would be significant and unavoidable, even with the incorporation of feasible mitigation measures.

Table 5-1: Summary of Significant and Unavoidable Impacts of the Project

Resources	Project Impacts	Cumulative Impacts
Air Quality	There would be no significant and unavoidable Project impacts. With the implementation of Mitigation Measure MM 4.3-1 through MM 4.3-5 , the impacts would be less than significant.	The Project would have cumulatively significant and unavoidable impacts related to consistency with existing air quality plans as the County does not have jurisdiction and control over all potential projects in the San Joaquin Valley Air Basin and, thus, cannot ensure that such projects would fully offset their criteria emissions pursuant to a Developer Mitigation Agreement. Additionally, although the Project would implement Mitigation Measures MM 4.3-1 through MM 4.3-10 , the Project, in combination with all potential projects in the SJVAB, could result in significant levels of criteria pollutants due to the lack of methodology to assess the specific correlation between mass emissions generated and the effect on the public health and welfare. Therefore, it would be speculative to determine how the Project, in combination with all potential projects in the SJVAB would affect the number of days the region is in non-attainment, since mass emissions are not correlated with the concentration of emissions or how many additional individuals in the SJVAB would be affected by the health impacts mentioned. As such, cumulative impacts for criteria pollutants would be considered cumulatively significant and unavoidable .
Greenhouse Gases	There would be no significant and unavoidable Project impacts.	The Project would implement Mitigation Measures MM 4.3-3 and MM 4.3-5 (Section 4.3, <i>Air Quality</i>), MM 4.6-1 and MM 4.6-2 (Section 4.6, <i>Energy</i>) Mitigation Measures MM 4.8-1 , MM 4.8-2 , and MM 4.17-3 (Section 4.17, <i>Transportation and Traffic</i>) to help reduce GHG emissions. However, without clear scientific or other criteria for determining the significance of the Project's contribution to global climate change, it is not possible to assess, with certainty, whether the Project's contribution would be cumulatively considerable within the meaning of California Environmental Quality Act Guidelines Sections 15065(a)(3) and 15130. Therefore, cumulative impacts associated with GHG emissions would be significant and unavoidable , regardless of the implementation of the aforementioned mitigation measures, as GHG impacts are exclusively

Resources	Project Impacts	Cumulative Impacts
		cumulative.
Noise	There would be no significant and unavoidable Project impacts.	The Project itself would result in a less than significant impact and Mitigation Measures MM 4.13-1 through MM 4.13-4 (Section 4.13, <i>Noise</i> , for full mitigation measures) would be implemented, requiring equipment laydown yards to be staged as far as possible from residences, construction equipment to be fitted with approved noise-reduction features, and construction vehicles to limit idling time and speeding on access roads. During operations, Project-level noise emissions would be further mitigated through the implementation of Mitigation Measure MM 4.1-3 , as outlined in Section 4.1, <i>Aesthetics</i> , which requires installation of a vegetative barrier along the Airport Drive and Boughton Drive frontages, resulting in both a visual and noise buffer between the industrial operations and nearby residences and sensitive receptors. Project construction activities would generate worker trips per day, vendor trips, and haul truck trips that would result in substantial temporary increases in noise due to increased traffic. The existing baseline plus construction traffic noise levels along the analyzed roadway segments would not increase by a noise level of more than 5 A-weighted decibels, which is considered to be a readily perceivable increase. However, the Project would result in significant and unavoidable cumulative noise-related impacts due to the temporary increase in construction noise. Therefore, even with the implementation of Mitigation Measures MM 4.1-3 , and MM 4.13-1 through MM 4.13-4 , cumulative noise impacts would still be considered significant and unavoidable .
Utilities and Service Systems	There would be no significant and unavoidable Project impacts.	With the implementation of the Project, sufficient groundwater supplies will continue to be available during future normal, dry, and multiple dry years in the County. Regardless, as the Kern County Subbasin is currently over-drafted and the District's Groundwater Sustainability Plan has been deemed inadequate, along with the other Kern subbasin plans where other similar known and unknown projects could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible and reasonable mitigation. Therefore, cumulative impacts related to water supply would be significant and unavoidable , despite the implementation of Mitigation Measures MM 4.19-3 and MM 4.19-4 .

Key:

GHG = greenhouse gas

SJVAB = San Joaquin Valley Air Basin

5.3 Irreversible Impacts

Section 15126.2(c) of the CEQA Guidelines defines an irreversible impact as an impact that uses nonrenewable resources during the initial and continued phases of the Project. Irreversible impacts can also result from damage caused by environmental accidents associated with a project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified.

Build-out of the Project would commit nonrenewable resources during Project construction. During Project construction, oil, gas, and other fossil fuels and nonrenewable resources would be consumed, primarily in the form of transportation fuel for Project employees and delivery trucks. Water used during the construction phase is also required for dust suppression, soil compaction, and grading activities.

Project operations are expected to also require gas and other fossil fuels in the form of transportation fuel for employees, as well as water for operational activities. Therefore, an irreversible commitment of nonrenewable resources would occur as a result of long-term Project operations. However, assuming that those commitments occur in accordance with the adopted goals, policies, and implementation measures of the Metropolitan Bakersfield General Plan (MBGP), as a matter of public policy, those commitments have been determined to be acceptable. The MBGP ensures that any irreversible environmental changes associated with those commitments will be minimized, to the extent feasible.

Additionally, the Project would be required to adhere to the latest adopted edition of the California Building Code, which includes standards to reduce energy demand, water consumption, wastewater generation, and solid waste generation that would collectively reduce the demand for resources during construction and operation. This would result in the emission and generation of less pollution and effluent and would further lessen the impact of corresponding environmental effects. Although the Project would result in an irretrievable commitment of nonrenewable resources, the commitment of these resources would not be inefficient, unnecessary, or wasteful.

5.4 Growth Inducement

The MBGP recognizes that certain forms of growth are beneficial, both economically and socially. Section 15126.2(d) of the CEQA Guidelines provides the following guidance on growth-inducing impacts: “A project is identified as growth inducing if it “could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.”

Growth inducement can result from new development that requires increased employment levels, removes barriers to development, or provides resources that lead to secondary growth. The Project does not include the construction of housing and would, therefore, not result in direct population growth as a result of additional housing.

As discussed in Section 4.11, *Land Use and Planning*, with respect to employment, the Project would promote development that is consistent with the economic and land use demands of the area, as defined by the goals and policies within the MBGP, and would not induce substantial growth. Implementation of the Project would create temporary and permanent employment positions. The Project would require a temporary workforce to construct the warehouse and distribution facility. The on-site construction workforce would consist of up to 503 full-time equivalent jobs; however, the average daily workforce would vary depending upon the stage of construction. During the operational phase, the facility would employ approximately 437 employees during up to three shifts, with additional indirect/induced economic impacts from the Project supporting approximately 159 additional jobs. Construction staff that are not local would likely be housed in existing communities. It is expected that operations staff would already reside in the area and operation of the Project would not result in a substantial influx of people (such as a new residential development, school, or other use that would result in large volumes of people residing near or traveling to the Project site).

As described in Section 4.14, *Population and Housing*, the unemployment rate in the Project region was 8.9% in June 2024. This regional unemployment rate is still above California's unemployment rate (5.3%) and the national average (4.3%). Thus, the temporary and permanent employees required by the Project could come from the surrounding areas and would not need to be relocated. The Project would not create additional infrastructure or road extensions that would indirectly induce population growth.

As described in Section 4.19, *Utilities and Service Systems*, Pacific Gas and Electric would supply electricity to the Project site. The Project proposes to use the existing electricity grid, and service laterals would be extended to the Project site from existing utility facilities along Boughton Drive and Airport Drive. Natural gas would also be required for Project operation and would also be provided by Pacific Gas and Electric. Although the North of River Sanitary District would serve the Project site for sewage disposal, the Project also would include on-site stormwater drainage consisting of inlets, underground piping, and surface basins. The basins would be designed to accommodate a 100-year storm event and would detain runoff and release it at a rate no greater than the Project site's predevelopment condition. Therefore, the Project would not require connection to existing storm drains or wastewater laterals. Because no extension of infrastructure to unserved areas would be required, no removal of physical barriers to growth would occur. In total, the Project is not likely to induce any growth within Kern County.

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Chapter 6

Alternatives

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6.1 Introduction

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) describe a range of reasonable alternatives to the Project, or to the location of the Project that would avoid or lessen any significant environmental impacts of the project, while feasibly attaining most of the Project's basic objectives. An EIR also must also compare and evaluate the environmental effects and merits of the alternatives. This chapter describes the alternatives considered but eliminated from further consideration and includes the reasons for the elimination, and includes a comparison of the environmental impacts of several alternatives retained with those of the proposed IPG Industrial Project (the Project).

The following are key provisions of the CEQA Guidelines (Section 15126.6):

- The discussion of alternatives shall focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives or would be more costly.
- The No Project Alternative shall be evaluated, along with its impacts. The No Project analysis shall discuss the existing conditions at the time the notice of preparation was published, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services.
- The range of alternatives required in an EIR is governed by a “rule of reason;” therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The range of feasible alternatives is selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives, as described in Section 15126.6(f)(1) of the CEQA Guidelines, are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan consistency, regulatory limitations, jurisdictional boundaries, and whether IPG Kern County 52 Holdings, LLC (Project proponent) could reasonably acquire, control,

or otherwise have access to an alternative site. An EIR need not consider an alternative whose effects could not be reasonably identified, whose implementation is remote or speculative, and that would not achieve the basic Project objectives.

Per the CEQA Guidelines, this section discusses alternatives that are capable of avoiding or substantially lessening the Project's potentially significant environmental effects. Section 6.2, *Proponent Submitted Project Objectives*, restates the Project proponent's Project objectives. Section 6.3, *Project Overview*, summarizes Project features. Section 6.4, *Overview of Project Alternatives*, provides an overview of the alternatives. Section 6.5, *Alternatives Considered and Rejected*, presents alternatives to the project that were considered but eliminated for further analysis. Section 6.6, *Analysis Format*, explains the evaluation process of each of the alternatives in accordance with CEQA Guidelines Section 15126.6(d). Section 6.7, *Impact Analysis*, presents a comparative analysis of the impacts of the alternative and the Project, followed by a general explanation of attainability of Project objectives under each alternative. Section 6.8, *Environmentally Superior Alternative*, makes a determination about the environmentally superior alternative analyzed in this EIR.

6.1.1 Significant Impacts of the Project after Mitigation

Potentially significant adverse environmental impacts that would result from the Project are evaluated in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*. The mitigation measures and impact conclusions are summarized in Chapter 1, *Executive Summary*, which includes a summary chart of impact conclusions for all topic areas. This EIR concludes that the Project has the potential to cause significant environmental impacts in the following categories:

- Air Quality (cumulative)
- Greenhouse Gas Emissions (cumulative)
- Noise (cumulative – construction)
- Utilities and Service Systems (cumulative – water supply)

Even with the mitigation measures described in Chapter 4, *Environmental Setting, Impacts, and Mitigation Measures*, of this EIR, impacts in these issue areas would be significant and unavoidable. Therefore, per the CEQA Guidelines, this chapter discusses alternatives that are capable of avoiding or substantially lessening effects on these resources. The significant and unavoidable impacts of the Project are discussed below.

Air Quality

As discussed in Section 4.3, *Air Quality*, with mitigation, the Project would have a less than significant impact related to conflicts with the adopted regulatory programs incorporated within San Joaquin Valley Air Pollution Control District's (SJVAPCD) ozone and particulate matter attainment plans, also referred to as an Air Quality Attainment Plan (AQAP). The Project would

also have a less than significant impact regarding exposure of sensitive receptors to substantial pollutant concentrations with the incorporation of mitigation measures.

The Project would require implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5** in order to reduce the severity of construction-related emissions. With implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5**, the Project would comply with all applicable SJVAPCD Rules and Regulations and would be consistent with the district's adopted AQAP, and therefore, would not conflict with or obstruct implementation of any applicable air quality plans. However, cumulative construction and long-term operational activity impacts would be significant and unavoidable because the County does not have jurisdiction and control over all potential projects in the San Joaquin Valley Air Basin. Additionally, because the amount of emissions generated by existing and future projects in the area is not available, it is possible that that together, these emissions would potentially exceed SJVAPCD's significance thresholds. For these reasons, cumulative localized air quality impacts associated with short-term construction and long-term operational activities would be considered significant and unavoidable.

Greenhouse Gas Emissions

As explained in Section 4.8, *Greenhouse Gas Emissions*, the Project's potential adverse effects related to direct and indirect greenhouse gas (GHG) emissions would be mitigated to less than significant levels. With the implementation of mitigation, the Project would not conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing emissions of GHG. However, there is currently no clear scientific or other criteria for determining the significance of the Project's contribution to global climate change.

Without the necessary science and analytical tools, it is not possible to assess, with certainty, whether the Project's contributions would be cumulatively considerable within the meaning of CEQA Guidelines Section 15065(a)(3) and 15130. CEQA, however, does note that more severe environmental problems have lower thresholds for determining that a project's contribution to cumulative impacts is significant. Given the position of the legislature in AB 32, which states that global warming poses serious detrimental effects, and the requirements of CEQA for the lead agency to determine that a project not have a cumulatively considerable contribution, the effect of the Project's total emissions of 13,974 MTCO₂e per year could be considered cumulatively considerable.

To reduce the Project's emissions, **Mitigation Measures MM 4.3-3** and **MM 4.3-5** (see Section 4.3 *Air Quality*, for full mitigation measures), **MM 4.6-1** and **4.6-2** (see Section 4.6, *Energy*, for full mitigation measures), and **MM 4.17.3** (see Section 4.17, *Transportation and Traffic*, for full mitigation measures) would be implemented to reduce emissions associated with energy use, waste generation, off-road equipment operations, motor vehicles, and area sources. **MM 4.8-1** and **MM 4.8-2** (see Section 4.8 *Greenhouse Gas Emissions*, for full mitigation measures) would also be implemented to reduce emissions associated with energy use, waste generation, off-road equipment operations, motor vehicles, and area sources.

As there are no clear scientific criteria for determining the significance of the Project's contribution to global climate change, the Project's cumulative impacts would remain significant and unavoidable despite implementation of the above Mitigation Measures. The Project's cumulative potential GHG contributions to global climate change is considered to be significant and unavoidable.

Noise

The Project would result in significant and unavoidable cumulative noise impacts due to the temporary increase in construction noise. The Project's construction activities would generate worker trips per day, vendor trips, and haul truck trips that would result in substantial temporary increases in noise due to increased traffic. The existing baseline plus construction traffic noise levels along the analyzed roadway segments would not increase by a noise level of more than 5 dBA, which is considered to be a readily perceivable increase. The proposed project itself would result in a less than significant impact and **Mitigation Measures MM 4.13-1 through MM 4.13-4** (see Section 4.13, *Noise*, for full mitigation measures) would be implemented requiring equipment laydown yards to be staged as far as possible from residences, construction equipment to be fitted with approved noise-reduction features, and construction vehicles to limit idling time and speeding on access roads. However, even with the implementation of **Mitigation Measures MM 4.13-1 through MM 4.13-4**, cumulative noise impacts would still be considered significant and unavoidable.

During operations, the Project's traffic noise levels would not result in a significant and unavoidable impact to off-site land uses at roadway segments in the Project's area based on the findings within the Noise and Vibration Analysis (Appendix I). During operations, project-level noise emissions would be further mitigated through implementation of **Mitigation Measure MM 4.1-3**, as outlined in Section 4.1, *Aesthetics*, which requires installation of a vegetative barrier along the Airport Drive and Boughton Drive frontages, resulting in both a visual and noise buffer between the industrial operations and nearby residences and sensitive receptors.

Utilities and Service Systems

As discussed in Section 4.19, *Utilities and Service Systems*, implementation of **Mitigation Measures MM 4.19-1 through MM 4.19-4** would reduce all impacts from the extension of water, stormwater, wastewater, and electrical infrastructure. Therefore, the Project's potential to require or result in the relocation or construction of new or expanded wastewater treatment or storm water drainage, electric power, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects, would be less than significant. Additionally, with implementation of **Mitigation Measures MM 4.19-1 through MM 4.19-4**, the project would have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years and impacts would be less than significant. Because the Project would not generate a significant amount of wastewater from operations, the Project does not have the potential to result in a determination by the wastewater service provider that it has an inadequate capacity to serve the Project's projected demand in addition to the provider's existing commitments.

Additionally, **Mitigation Measure MM 4.19-5**, would require the provision of a recycling coordinator to ensure the separation and proper disposal of recyclable materials and solid waste during construction. With mitigation, the Project's potential to generate solid waste in excess of State or local standards, or in excess of local infrastructure, or otherwise impair the attainment of solid waste reduction goals would be less than significant as well. Implementation of mitigation along with compliance with applicable statutes and regulations would also ensure compliance with policies to reduce waste sent to landfills, reducing impacts to less than significant.

In regard to cumulative impacts, the Project could result in significant impacts on utilities and service systems relative to water supply. As the Kern County subbasin is currently over drafted and the District's Groundwater Sustainability Plan has been deemed inadequate, along with the other Kern subbasin plans where the other similar known and unknown projects could occur, the cumulative impacts of any use of groundwater in the area are considered cumulatively significant and unavoidable after all feasible and reasonable mitigation.

6.2 Proponent Submitted Project Objectives

The Project proponent has defined the following objectives for the Project:

- Develop state-of-the-art warehouse and distribution facilities near major transportation corridor
- Meet regional demand for Class A industrial facilities that address local traffic patterns and needs
- Develop a visually appealing industrial Project that is consistent with the provisions of the Kern County Zoning Ordinance, Land Division Ordinance, and Development Standards
- Promote land use compatibility with adjacent airport related uses by developing a warehouse and distribution facility
- Positively contribute to the local economy through new capital investment, the creation of new employment opportunities, expansion of the tax base, economic growth and development, and payment of development fees
- Site an industrial project in a location consistent with current and future market demands which minimizes conflicts with surrounding uses

6.3 Project Overview

The Project would include the development of a 923,130-square-foot warehouse distribution facility and associated improvements on approximately 49.05 acres located in the central portion of unincorporated Kern County. The facility contains two single-story buildings: one building (Building 1) would total approximately 655,690 square feet and the second (Building 2) would total 267,440 square feet, with a total of 15,000 square feet for office space. The warehouses would be primarily constructed from architecturally enhanced concrete panels and would not exceed 56 feet

in height above finished floor elevation. The primary function would be a high cube and cold storage warehouse storage to facilitate material handling equipment and storage uses, where cold storage would occupy up to 20% of the facility. The warehouses would serve trucks exclusively and would require truck doors of various types. Improvements to roadways would be required to adhere to Kern County Public Works Department development standards. Other improvements include utility, water, and gas lateral extensions and storm drainage systems.

6.4 Overview of Project Alternatives

Under CEQA, and as required in California Public Resources Code Section 21002.1(a), the identification and analysis of alternatives to a Project is a fundamental aspect of the environmental review process and is required to ensure the consideration of ways to mitigate or avoid the significant environmental effects of a Project. Based on the significant environmental impacts of the Project, the aforementioned objectives established for the Project, and the feasibility of the alternatives considered, two alternatives, including the No Project Alternative as required by CEQA, are considered in this chapter and summarized in **Table 6-1**. The Environmentally Superior Alternative, as required by CEQA, is described in Section 6.10, *Environmentally Superior Alternative*, below.

6.4.1 Alternative 1: No Project Alternative

The CEQA Guidelines require EIRs to include a No Project Alternative for the purpose of allowing decision-makers to compare the effects of approving the Project versus a No Project Alternative. Accordingly, Alternative 1, the No Project Alternative, assumes that the development of the proposed warehouse would not occur. The No Project Alternative would not require the Precise Development (PD) Plan or a Zone Variance (ZV) for construction and operation of a warehouse distribution facility and associated improvements. Under the No Project Alternative, the Project site would maintain the current zoning, land use classifications, and existing undisturbed land surrounded by industrial and commercial uses. No physical changes would be made to the Project site.

6.4.2 Alternative 2: Reduced Footprint Alternative

Alternative 2, the Reduced Footprint Alternative, would be developed at the Project site with a reduced footprint by approximately 30%. Under this alternative, only Building 1 would be constructed, with a site area of 35.17 acres featuring a 655,690-square-foot warehouse with 10,000 square feet dedicated to office space. This approach would decrease the overall development footprint, as well as reduce the number of employee and truck trips, traffic congestion, and emissions compared to the Project, along with a proportionate amount of demand for water, energy, utilities, and other resources. However, it would still require the same entitlements as the Project.

6.4.3 Alternative 3: Eastern Kern/Mojave Specific Plan Project Alternative Site

Alternative 3, the Eastern Kern/Mojave Specific Plan Project Alternative Site, proposes the same Project development and operation of a 923,130-square-foot warehouse distribution facility and associated improvements on approximately 49.05 acres, but located in the Mojave Desert, rather than the San Joaquin Valley of Kern County, specifically eastern Kern County in the adopted Mojave Specific Plan area (**Figure 6-1**). The Mojave Specific Plan encompasses approximately 31,000 acres in eastern Kern County, including the unincorporated community of Mojave, and functions as the transportation and aviation hub of eastern Kern County.

The intention of this Project alternative is to find a Project site with similar site features as the existing Project site and in unincorporated Bakersfield, such as: adjacency to major freeway access, industrial designation, and reduced travel distances required for distribution trucks, thereby resulting in similar related impacts to aesthetics, air quality, biological resources, and GHG emissions associated with the Project. The Specific Plan area has direct access off State Route 58 (SR 58), which connects the Riverside, San Bernadino, and Ontario Metropolitan transportation corridors, and also connects to State Highway 14 (Antelope Valley Freeway) with direct access to Southern California Interstate 5 into the City of Los Angeles and San Diego.

Alternative 3 would develop the same land area and all of the Project components. Approval of Alternative 3 would be required to comply with the Mojave Specific Plan and entitlements for the Project, which would be dependent on the site selected within the planning area. Impacts to water supply usage would be reduced to less than significant because the Mojave Specific Plan water basin is not subject to any adjudication or the Groundwater Management Sustainability Act (GSMA). The East Kern Air Pollution Control District is responsible for regional air quality of the area and is considered to be in attainment for emissions, while the SJVAPCD is in nonattainment for O₃ (8-hour) and PM_{2.5} (federal) and O₃ (1-hour and 8-hour), PM₁₀, and PM_{2.5} (State). As a Specific Plan with an existing Final EIR and sites zoned M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining) with an underlying LI (Light Industrial) land use designation, CEQA streamlining could be available for Alternative 3.

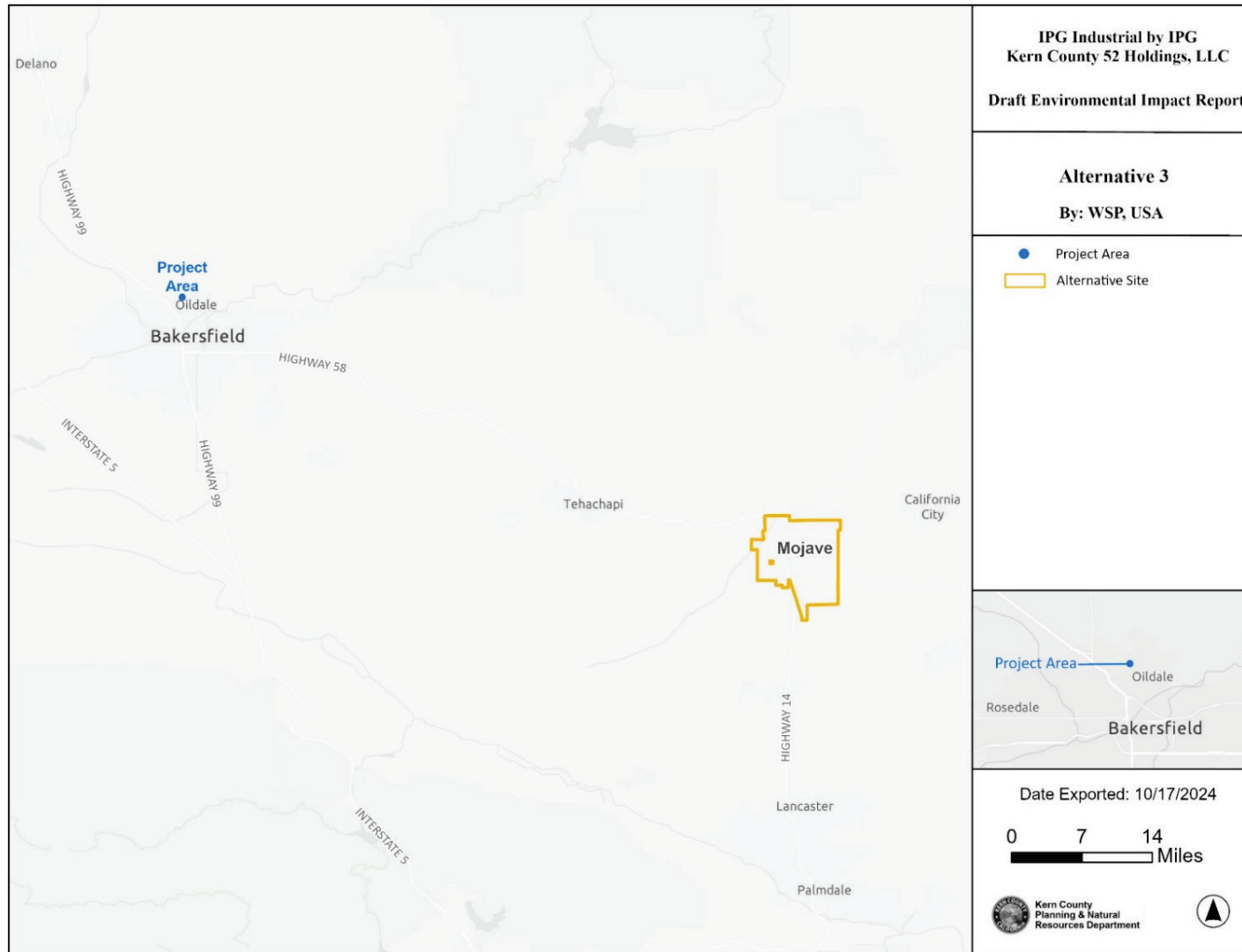
Figure 6-1: Alternative 3 Location

Table 6-1 provides a summary of the relative impacts and feasibility of each alternative. A complete discussion of each alternative is also provided below.

Table 6-1: Summary of Development Alternatives

Alternative	Description	Basis for Selection and Summary of Analysis
The Project	The Project would include the development of a 923,130-square-foot warehouse distribution facility and associated improvements on approximately 49.05 acres located in the central portion of unincorporated Kern County. The facility contains two single-story buildings: one building (Building 1) would total approximately 655,690 square feet and the second (Building 2) would total 267,440 square feet, with a total of 15,000 square feet for office space.	N/A
Alternative 1: No Project Alternative	No development would occur on the Project site. The Project site would remain unchanged.	<ul style="list-style-type: none"> • Required by CEQA • Avoids need for approval of ZV and PD Plan • Avoids all significant and unavoidable impacts • Less impact in all remaining environmental issue areas • Does not meet any of the Project objectives
Alternative 2: Reduced Footprint	Alternative 2, the Reduced Footprint Alternative, would be developed at the same Project site with a footprint reduced by approximately 30%. Under this alternative, only Building 1 would be constructed, with a site area of 35.17 acres featuring a 655,690-square-foot warehouse with 10,000 square feet dedicated to office space.	<ul style="list-style-type: none"> • Requires the same PD Plan and ZV • Reduces impacts to aesthetics, air quality, cultural resources, energy, geology and soils, noise, transportation and traffic, and tribal cultural resources due to the reduced footprint • Reduces environmental impacts associated with operational traffic, and associated air, noise and GHG emissions by approximately 30% • Meets Project objectives to lesser extent than the Project
Alternative 3: Eastern Kern/Mojave Specific Plan Project Alternative Site	Alternative 3, the Eastern Kern/Mojave Specific Plan Project Alternative Site, proposes the same project development and operation of a 923,130-square-foot warehouse distribution facility and associated improvements on approximately 49.05 acres, but in a different area of Kern County, specifically eastern Kern County in the adopted Mojave Specific Plan area (Mojave Specific Plan 2003).	<ul style="list-style-type: none"> • Greater impacts to biological resources • Similar impacts in all remaining environmental issue areas • Meets all Project objectives

CEQA = California Environmental Quality Act

GHG = greenhouse gas

PD = Precise Development

ZV = Zone Variance

6.5 Alternatives Considered and Rejected

Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the Project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects (CEQA Guidelines Section 15126.6(c)). Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (CEQA Guidelines Section 15126(f)(3)). Kern County considered several alternatives to reduce the Project's significant and unavoidable impacts. Per CEQA, the lead agency may make an initial determination as to which alternatives are feasible and warrant further consideration, and which are infeasible. The following alternatives were initially considered but were eliminated from further consideration in this EIR because they do not meet the project objectives or were infeasible:

The Infill Alternative was considered relative to the requirements of CEQA Section 21061.3, which states an infill site, by definition, must meet either of the following criteria (CEQA 2023):

(a) The site has not been previously developed for urban uses and both of the following apply:

(1) The site is immediately adjacent to parcels that are developed with qualified urban uses, or at least 75 % of the perimeter of the site adjoins parcels that are developed with qualified urban uses and the remaining 25% of the site adjoins parcels that have previously been developed for qualified urban uses.

(2) No parcel within the site has been created within the past 10 years unless the parcel was created as a result of the plan of a redevelopment agency.

(b) The site has been previously developed for qualified urban uses

The Infill Alternative was rejected due to there being no suitable infill sites for the size of the land area located in the administrative boundaries of unincorporated Kern County for the Project. Additionally, choosing this location would potentially cause impacts to be more significant than the Project due to the potential need for additional changes in land use designation and zoning proximate to existing development, including residences or other sensitive receptors.

Transit-oriented development (TOD) creates compact, mixed-use communities near a transit station where people enjoy access to jobs and services. A TOD Alternative was considered and rejected as there are currently no suitable TOD sites within the administrative boundaries of unincorporated Kern County for siting the Project.

6.6 Analysis Format

In accordance with CEQA Guidelines Section 15126.6(d), each alternative is evaluated in sufficient detail to determine whether the overall environmental impacts would be less, similar, or greater than the corresponding impacts of the Project. Furthermore, each alternative is evaluated to determine whether the Project objectives identified in Chapter 3, *Project Description*, of this EIR, would be mostly attained by the alternative. The Project's impacts that form the basis of comparison in the alternatives analysis are those impacts which represent a conservative assessment of Project impacts. The evaluation of each of the alternatives follows the process described below.

- a) The net environmental impacts of the alternative after implementation of reasonable mitigation measures are determined for each environmental issue area analyzed in this EIR.
- b) Post-mitigation significant and less than significant environmental impacts of the alternative and the Project are compared for each environmental issue area as follows:
 - Less: Where the impact of the alternative after feasible mitigation would be clearly less adverse than the impact of the Project, the comparative impact is said to be “less.”
 - Greater: Where the impact of the alternative after feasible mitigation would be clearly more adverse than the impact of the Project, the comparative impact is said to be “greater.”
 - Similar: Where the impacts of the alternative after feasible mitigation and the Project would be roughly equivalent, the comparative impact is said to be “similar.”
- c) The comparative analysis of the impacts is followed by a general discussion of whether the underlying purpose for the Project, as well as the Project's basic objectives would be substantially attained by the alternative.

Table 6-2 provides a summary and side-by-side comparison of the Project with the impacts of each of the alternatives analyzed. Please note that in Alternatives 1 through 3 in **Table 6-2**, the references to “less, similar, or greater,” refer to the impact of the alternative compared to the Project, and the abbreviated impacts—no impact (NI), less than significant (LTS), or significant and unavoidable (SU)—refer to the significance conclusion of the specific alternative.

6.7 Impact Analysis

6.7.1 Alternative 1: No Project Alternative

Environmental Impact Analysis

Aesthetics

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. The Project site would remain in its current state as undeveloped land and no change to the scenic vistas or existing visual character and quality of the site would occur. Impacts to scenic resources and daytime and nighttime views in the area would not occur. Therefore, there would be no impact, and the No Project Alternative would result in less impact to aesthetics compared to the Project.

Agricultural Resources

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. The Project site would remain in its current state, consisting of undeveloped, nonagricultural land currently designated for industrial use. As such, the No Project Alternative would not involve changes to the existing environment. Therefore, there would be no impact on agriculture and forestry resources, and the No Project Alternative would result in similar impacts related to agriculture and forestry resources compared to the Project.

Air Quality

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. No construction activities or operational activities that would generate air emissions would occur. No exceedance of the SJVAPCD's regional and localized significance thresholds or conflicts with the attainment of the standard would occur, nor would the No Project Alternative contribute to a cumulative net increase of criteria pollutants in the Project region. Therefore, there would be no impact, and the No Project Alternative would result in less impact to air quality compared to the Project.

Biological Resources

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. Existing biological resources on the Project site, including special-status and wildlife species, would remain undisturbed since no construction or operations would occur. The Project site would remain in its current state as undeveloped land and would not contribute to a cumulative loss of wildlife species. As such the No Project Alternative would not have a substantial adverse effect on any species identified as a candidate, sensitive, or special-status species, on any riparian habitat or other sensitive natural communities, on federally protected wetlands; interfere substantially with the movement of any native resident or migratory fish or wildlife species; conflict with any local

policies or ordinances protecting biological resources; or conflict the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan. Therefore, there would be no impact, and the No Project Alternative would result in less impact related to biological resources compared to the Project.

Cultural Resources

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. The Project site would remain undeveloped, and no ground-disturbing activities would occur. As such, disturbance to potential on-site historical resources, archaeological resources, or human remains would not occur. Therefore, there would be no impact, and the No Project Alternative would result in less impact related to cultural resources compared to the Project.

Energy

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. No new energy consumption or activities would occur. As such, the No Project Alternative would not result in wasteful, inefficient, or unnecessary consumption of energy resources and would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency. Therefore, there would be no impact, and the No Project Alternative would result in less impacts related to energy compared to the Project.

Geology and Soils

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. The Project site would remain undeveloped, and no ground disturbance would occur. Therefore, the No Project Alternative would do none of the following:

- Directly or indirectly cause potential substantial adverse effects involving rupture of a known earthquake fault, strong seismic ground shaking, seismic- related ground failure, and landslides
- Result in substantial soil erosion or loss of topsoil
- Result in on- or off-site landslides, lateral spreading, subsidence, liquefaction, or collapse
- Be located on expansive soil
- Contain soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems
- Directly or indirectly destroy a unique paleontological resource or unique geologic feature

Therefore, there would be no impact, and the No Project Alternative would result in less impact related to geology and soils compared to the Project.

Greenhouse Gas Emissions

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. Emissions associated with the construction and operation of a warehouse and distribution center would not occur. Therefore, those emission that contribute to GHGs would be eliminated and no impacts would occur related to generating emissions that may have a significant impact on the environment or consistency with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. Therefore, there would be no impact, and the No Project Alternative would result in less impact related to GHGs compared to the Project.

Hazards and Hazardous Materials

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. The Project site would remain in its current condition. Therefore, this alternative would do none of the following:

- Involve the routine transport, use, or disposal of hazardous materials associated with the Project site
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment
- Emit hazardous waste within 0.25 mile of a school
- Be located on a site that is included on a list of hazardous materials sites
- Result in a safety hazard or excessive noise
- Impair implementation of an adopted emergency response plan
- Expose people or structures to significant risk of loss, injury, or death involving wildland fires
- Generate vectors

Therefore, there would be no impact, and the No Project Alternative would result in less impacts related to hazardous materials compared to the Project.

Hydrology and Water Quality

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. The Project site's existing hydrology and water quality would remain unchanged as no development or ground disturbance related to the proposed warehouse and distribution facility would occur at the Project site. As noted previously, the basin is currently over drafted and the District's Groundwater Sustainability Plan (GSP) has been deemed inadequate along with the other Kern subbasin plans where the other similar known and unknown Projects would occur.

This alternative would do none of the following:

- Violate water quality standards or waste discharge requirements
- Contribute to the existing decrease of groundwater supplies
- Substantially alter the existing drainage patterns of the site or area in a manner that would result in substantial erosion or sedimentation on- or off-site
- Result in flooding on-site or off-site
- Create or contribute to substantial runoff water which would exceed the capacity of existing or planned stormwater drainage system, or impeded or redirect flood flows
- Result in flood hazards, tsunamis, or seiche zones
- Conflict with or obstruct implementation of a water quality plan

Therefore, there would be no impact, and the No Project Alternative would result in less impact related to hydrology and water quality compared to the Project.

Land Use Planning

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. The No Project Alternative would not develop any new uses at the Project site, and consequently, would not require entitlements for a PD Plan or ZV. As such, the No Project Alternative would not cause a significant environmental impact due to physically dividing an established community or conflicting with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, there would be no impact, and the No Project Alternative would result in less impact related to land use and planning compared to the Project.

Mineral Resources

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. There are no mineral resources on the Project site or in proximity. As such, the No Project Alternative would have no impact on, or result in the loss of, the availability of a locally important mineral resource recovery site delineated on a local general plan, Specific Plan, or other land use plan. Therefore, the No Project Alternative would result in similar impacts related to mineral resources compared to the Project.

Noise

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. Noise sources from construction and operation would not be on-site, and existing noise conditions would remain the same. Therefore, the No Project Alternative would do none of the following:

- Result in generation of a substantial temporary or permanent increase in ambient noise levels
- Generate excessive ground-borne vibration

- Expose people residing or working in the Project area to excessive noise levels

Therefore, there would be no impact, and the No Project Alternative would result in less impact related to noise compared to the Project.

Population and Housing

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. Without the influx of new jobs and work force resulting from the Project, no net increase of the existing county population would occur and incidentally, no new demand for housing and related services would need to be met. Therefore, there would be no impact, and the No Project Alternative would result in less impact related to population and housing compared to the Project.

Public Services

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. No new demand for fire or law enforcement protection services would occur. As such, the No Project Alternative would not result in the need for new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for fire protection and law enforcement protection. Therefore, there would be no impact and the No Project Alternative would result in less impact related to public services compared to the Project.

Recreation

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. Without the occurrence of potential population increases incidentally increasing the demand and use of recreational places and facilities, there would be no impact on recreational resources, and the No Project Alternative would result in less impact related to recreation compared to the Project.

Transportation and Traffic

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. No construction and operational related trips would be generated. Existing traffic patterns and volumes on nearby roadways would remain unchanged. As such, the No Project Alternative would not conflict with a program, plan, or ordinance or policy addressing the circulation system, nor would the No Project Alternative conflict or be inconsistent with CEQA Guidelines Section 15064.3(b) related to vehicle miles traveled (VMT). In addition, the No Project Alternative would not substantially increase hazards due to geometric design features or result in inadequate access. Therefore, there would be no impacts and the No Project Alternative would result in less impacts related to transportation and traffic compared to the Project.

Tribal Cultural Resources

Under the No Project Alternative, no development would take place on the Project site, and the proposed warehouse and associated improvements would not be constructed. The Project site would remain undeveloped, and no ground-disturbing activities would occur. According to record searches and tribal resource consultations, no known tribal resources are present on the Project site. As such, the No Project Alternative would not cause a substantial adverse change in the significance of tribal cultural resources with cultural value to a California Native American tribe that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or as a resource determined by the lead agency. Therefore, there would be no impact, and the No Project Alternative would result in less impact related to tribal cultural resources compared to the Project.

Utilities and Service Systems

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. There would be no new demand for utilities and service systems on the Project site. Therefore, the No Project Alternative would do none of the following:

- Require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects
- Generate solid waste in excess of State or local standards
- Conflict with federal, State, and local management and reduction statutes and regulations related to solid waste

Therefore, there would be no impact and the No Project Alternative would result in less impact related to utilities and service systems compared to the Project.

Wildfire

Under the No Project Alternative, no development would take place on the Project site and the proposed warehouse and associated improvements would not be constructed. Therefore, the No Project Alternative would do none of the following:

- Substantially impair an adopted emergency response plan or emergency evacuation plan
- Expose occupants to pollutant concentrations from a wildfire
- Require the installation or maintenance of associated infrastructure
- Expose people or structures to significant risks

Therefore, there would be no impact and the No Project Alternative would result in less impacts related to wildfire compared to the Project.

Comparison of Impacts

The No Project Alternative would avoid all significant and unavoidable impacts associated with the development of the Project. This alternative would result in less environmental impact compared to the Project.

Relationship to Project Objectives

The No Project Alternative would not achieve any of the project objectives listed above in Section 6.2, *Project Objectives*. Although this alternative would create less environmental impacts overall, the objectives that shape the Project would not be realized under this alternative.

6.7.2 Alternative 2: Reduced Footprint Alternative

Under the Reduced Footprint Alternative, the Project footprint would be reduced by approximately 30% (from 49.01 acres to 35.17 acres) by eliminating the construction of Building 2 from the Project. The Reduced Footprint Alternative would instead develop a 655,690-square-foot warehouse inclusive of 10,000 square feet of office space on 35.17 acres. Due to the elimination, 13.86 acres and a 267,440-square-foot warehouse with 5,000 square feet of office area and associated infrastructure improvements would not be developed compared to the Project.. The reduced footprint alternative would include improvements to off-site roadways, utilities, water treatment facilities, gas lateral extensions, storm drainage systems, and associated infrastructure, similar to the Project.

Environmental Impact Analysis

Aesthetics

There are no officially designated scenic vistas or State scenic highways or potentially eligible highways in the vicinity of the Reduced Footprint Alternative Project site.

While this alternative would avoid development on a portion of the Project site, this alternative would still include the development of a warehouse and associated infrastructure. As explained in Section 4.1, *Aesthetics and Visual Resources*, the existing Project site would be considered to have an “average” visual quality. The impacts associated with the Project’s visual modifications would dominate current views but would not contrast with or strongly degrade the visual character in relation to the surrounding zoning. Similar to the Project, the Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.1-1** through **MM 4.1-3**, which would be incorporated to reduce visual impacts that would occur from Project colors and features and ensure that the Project would utilize landscaping as a buffering screen. With implementation of **MM 4.1** through **MM 4.1-3**, the visual changes would conform with the surrounding industrial, commercial, residential, and transportation uses, and impacts to existing visual character and scenic quality from public views near the Project site would be reduced to less than significant.

Despite the reduced size of the warehouse and associated infrastructure under the Reduced Footprint Alternative as compared with the Project, the potential for impacts related to light and glare during construction and operation would be reduced, although potentially significant, considering the nearest residential uses across Airport Drive. Therefore, this alternative would be required to implement **Mitigation Measure MM 4.1-4**, which includes demonstrating consistency with the applicable provisions of the Outdoor Lighting – Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance), demonstrating that the Project is designed to minimize glare, and demonstrating that on-site building utilizes nonreflective materials. Similar to the Project, with the implementation of **MM 4.1-4** and compliance with applicable local development standards and regulations, lighting impacts onto adjacent properties and roads during operations would be less than significant for the Reduced Footprint Alternative.

Cumulative development in the area would consist of industrial uses, guided by the Land Use Element of the Metropolitan Bakersfield General Plan (MBGP). Per the MBGP, cumulative industrial projects would be encouraged to utilize landscaping, similar to the Project site, in order to upgrade the visual character by maintaining screening of these industrial uses. Despite the reduced size of the Reduced Footprint Alternative, the development of industrial uses would ultimately alter the landscape from the original form. However, similar to the Project, the MBGP would ensure industrial uses of the Reduced Footprint Alternative would not clash with surrounding uses through design requirements. Similarly, reasonably foreseeable projects would increase light sources in the area, but with adherence to the Outdoor Lighting – Dark Skies Ordinance, sources of light and would be minimized. Furthermore, reasonably foreseeable projects within the area would go through project-level environmental review and would be held to the same standards as the Project and Reduced Footprint Alternative. The incorporation of consistent colors of surrounding landscape and vegetation screening as required by **Mitigation Measures MM 4.1-1** through **MM 4.1-3** would further ensure visual quality is consistent with policies in the MBGP for industrial uses. Therefore, like the Project, cumulative impacts to visual character under the Reduced Footprint Alternative would be less than significant.

The Reduced Footprint Alternative would have similar overall impacts to aesthetics compared to the project, but to a lesser extent of the project being implemented due to the reduction in project size under this alternative. Impacts regarding visual character would remain less than significant.

Agricultural and Forestry Resources

The Project site is not within an area designated for, or that supports farmland or forest land. The Project site is primarily made up of vacant or disturbed land, or nonagricultural or natural vegetation. Therefore, implementing the Project would not result in permanent changes to the environment that, due to location or nature, would result in conversion of farmland or forest land to nonagricultural use or non-forest use. Additionally, per the land use designation and combined zoning district, the Project site is intended to be utilized for light industrial uses. The Project site does not contain agricultural or forest resources to support timberland, forest land, or production of timber. The Project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland, nor would it conflict with timber production. Similar to the Project, implementation

of this alternative would not result in the conversion of farmland or forest land to nonagricultural or non-forest use, and no impacts would occur.

Air Quality

The use of construction vehicles, heavy equipment operation, and worker carpool trips would be reduced compared to the Project due to significantly smaller demands as a result of the reduced project size. Similar to the Project, this alternative would also require implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5** in order to reduce the severity of construction-related emissions. As similar heavy equipment would be required on a daily basis under this alternative, with a site plan reduced by approximately 30% from the Project, construction impacts would be less than significant with mitigation. Overall, based on the above, with implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5**, the Project would comply with all applicable SJVAPCD Rules and Regulations and would be consistent with the AQAP. So, similar to the Project, construction impacts under this alternative would not conflict with or obstruct implementation of applicable air quality plans. Therefore, due to the reduced size of the alternative, impacts from construction would be less than the Project and would be less than significant.

During operation of the Reduced Footprint Alternative, emissions would be reduced compared to the Project, as fewer commuting and truck trips would be required with the reduced Project scale and number of on-site employees. As such, operational impacts would be less than the Project and would be less than significant.

With regard to exposure to sensitive receptors, the Reduced Footprint Alternative would have a decreased impact compared to the Project due to its smaller size. While the Project has the potential to expose sensitive receptors to substantial pollutant concentrations during construction, implementation of **Mitigation Measures MM 4.3-6** through **MM 4.3-10** in addition to aforementioned **MM 4.3-1** through **MM 4.3-5**, would reduce impacts to less than significant levels. The Reduced Footprint Alternative would reduce the operations and, in turn, the possible impacts on nearby sensitive receptors. As such, project-level impacts would be less than significant and less than the Project.

With regard to objectionable odors, neither construction nor long-term operations of the Project are anticipated to generate any significant objectionable odors. Given the smaller development footprint and reduced operational capacity of the Reduced Footprint Alternative, impacts would be less than the Project.

Cumulative construction impacts would be significant and unavoidable for the Project because the County does not have jurisdiction and control over all potential projects in the San Joaquin Valley Air Basin. As cumulative construction impacts would be significant and unavoidable, the Reduced Footprint Alternative would also obstruct the air quality planning goals set forth by SJVAPCD. Therefore, similar to the project, impacts would be significant and unavoidable.

Based on the above, impacts under the Reduced Footprint Alternative would result in less overall impacts related to air quality compared to the project. However, even with implementation of similar mitigation as proposed for the project, impacts to cumulative air quality under this

alternative would likely remain significant and unavoidable. While this alternative would avoid disturbing 13.86 acres of land, cumulative impacts related to air quality would be similar compared to the project.

Biological Resources

As it relates to impacts on candidate, sensitive, or a special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS), as with the Project, the Reduced Footprint Alternative would have an impact to burrowing owls, San Joaquin Kit Fox, Crotch Bumble Bees, and nesting birds.

With implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-12**, which generally include conducting preconstruction surveys and implementing avoidance procedures, among other measures, impacts would be reduced to less than significant. However, while this alternative would avoid disturbing 13.86 acres of land within the Project site, the undisturbed land would remain surrounded by industrial and commercial uses, transportation, vacant land, and residential uses to the east of the Project site, continuing to constitute inhospitable habitat for candidate, sensitive, or special-status species. Therefore, impacts would remain less than significant, similar to the Project.

With regard to impacts on any riparian habitat or other sensitive natural community, jurisdictional waters identified in local or regional plans, policies, or regulations or by CDFW or USFWS, the Project site consists almost entirely of non-native grassland, which is not considered sensitive by CDFW. Sensitive natural communities and riparian habitats are absent from the Project site. No impact would occur under the Reduced Footprint Alternative, similar to the project.

As it relates to the movement of any resident or migratory fish or wildlife species, there are no perennial water features present within the Project site, and therefore no potential corridors for aquatic species. In addition, no wildlife nursery sites have been identified on or in the vicinity of the Project site, but native birds could potentially nest on the Project site. Through implementation of **Mitigation Measures MM 4.4-3** through **MM 4.4-12**, the Reduced Footprint Alternative would not be expected to adversely impact nesting birds and impacts would be less than significant, similar to the project.

Implementation of the above-referenced mitigation measures would ensure consistency with local policies and ordinances protecting biological resources. The Reduced Footprint Alternative, as with the project, would not conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan or other approved local, regional, or State Habitat Conservation Plan.

Based on the above, impacts under the Reduced Footprint Alternative would be less than significant with implementation of mitigation. However, even with a reduced project footprint, special-status species have the potential to occupy the Project site. Given the number of present and reasonably foreseeable future development projects in the region, the Reduced Footprint Alternative would make a considerable contribution to cumulative biological resource impacts, even with mitigation. Nonetheless, impacts would remain less than significant, similar to the Project.

Cultural Resources

While no historical or archaeological resources that meet any of the criteria for listing in the California Register for Historic Resources were identified within the Project site, ground-disturbing activities associated with the project have the potential to encounter undocumented archaeological resources that could qualify as historical resources. Similar to the project, the Reduced Footprint Alternative would implement **Mitigation Measures MM 4.5-1** through **MM 4.5-4**, which include measures to retain a Lead Archaeologist and measures to implement if historical resources and/or human remains are encountered during the course of grading or construction. In addition, there is no indication that any particular location within the Project site has been used for purposes of human burial in the recent or distant past. In the unlikely event that human remains are inadvertently discovered during project construction activities, implementing **Mitigation Measure MM 4.5-4**, which provides measures to implement if human remains are uncovered during project construction, would ensure that any human remains encountered are appropriately addressed, and impacts would be less than significant.

Based on the above, implementing mitigation similar to that of the Project, impacts to cultural resources under this alternative would be less than significant. However, the Reduced Footprint Alternative would result in less impact related to cultural resources compared to the Project due to the reduction in ground disturbance required under this alternative.

Energy

Similar to the Project, while the Reduced Footprint Alternative does not include any unusual design characteristics that would necessitate the use of equipment that would be less energy-efficient than at comparable construction sites in the region or state, this alternative would implement **Mitigation Measure MM 4.3-3** to further reduce energy consumption through regular vehicle maintenance. **Mitigation Measures MM 4.6-1** and **MM 4.6-2** would require that the alternative incorporate energy efficient building design standards and green building measures into overall Project design. Both the Project and the Reduced Footprint Alternative would comply with all State energy efficiency policies. Given the reduced size and energy demand of the Reduced Footprint Alternative, it is therefore assumed that impacts would be less than the Project and less than significant.

Geology and Soils

Construction of the Reduced Footprint Alternative would be subject to all applicable ordinances of the Kern County Building Code (Chapter 17.08). Kern County has adopted the California Building Code 2022 Edition (California Code of Regulations Title 24). Adherence to all applicable regulations would mitigate any potential fault rupture-related impacts associated with this alternative. Similar to the project, the Reduced Footprint Alternative would be required to implement **Mitigation Measure MM 4.7-1** and **MM 4.7-7**, which generally includes requiring a geotechnical evaluation to evaluate soil conditions and geologic hazards, a California registered engineer to design project facilities to handle seismic activity, ground shaking, and liquefaction, use of existing roads to the greatest extent feasible, and grading limitations with implementation of erosion control best management practices (BMPs).

Additionally, erosion impacts of the Reduced Footprint Alternative during construction would be mitigated through the implementation of a Storm Water Pollution Prevention Plan and appropriate BMPs, as required by **MM 4.7-8** and **MM 4.10-1**, as discussed in Section 4.10, *Hydrology and Water Quality*. Under the Reduced Footprint Alternative, a smaller area of ground cover would be disturbed, and thus a reduced impact related to the potential for soil erosion would occur compared to the Project. Impacts would be less than significant and less than the Project due to the reduced footprint.

As it relates to a unique paleontological resource or site or unique geologic feature, similar to the Project, under the Reduced Footprint Alternative any ground disturbance within the Project site could result in a potentially significant impact to paleontological resources. Therefore, the Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.7-9** through **MM 4.7-11**, which would include retaining a qualified paleontologist and implementing measures if a paleontological resource is found during construction, to reduce impacts to paleontological resources. Therefore, impacts would be less than significant, similar to the Project.

As discussed above, with implementation of mitigation similar to that required for the project, impacts to geology and soils would be less than significant, and impacts to geology and soils would be similar compared to the Project due to the reduction in ground disturbance required under this alternative.

Greenhouse Gas Emissions

With regard to generation of GHGs, the Project would result in the temporary generation of emissions associated with various activities, including site preparation, grading, paving, building construction, and the application of architectural coatings. GHG emissions would be largely associated with off-road equipment use, as well as on-road vehicle operations associated with workers commuting to and from the Project site and haul-truck trips. Similar to the Project, the Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.3-3** and **MM 4.3-5** (Section 4.3, *Air Quality*), **MM 4.6-1** and **MM 4.6-2** (Section 4.6, *Energy*), and **MM 4.17-3** (Section 4.17, *Transportation and Traffic*,) which would ensure the project remains consistent with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG emissions. Similar to the Project, the Reduced Footprint Alternative would have a significant and unavoidable cumulative impact; however, the impacts of the Reduced Footprint Alternative would be less compared to the Project due to its lower intensity of operations, including fewer trips and a lower demand for energy.

The Reduced Footprint Alternative would be required to use electric-powered off-road equipment and target a construction waste diversion rate of 80%, as part of **MM 4.8-1**, and provide electrical hookups for Transport Refrigeration Units (TRUs) as part of **MM 4.8-2**. The Reduced Footprint Alternative would have similar impacts relative to GHG emissions as the Project. As such, the Reduced Footprint Alternative would have a significant and unavoidable impact related to GHG emissions, and impacts would be similar to the Project.

Hazards and Hazardous Material

Similar to the project, the Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.7-8** (Section 4.7, *Geology and Soils*), **MM 4.9-1** through **MM 4.9-13** (Section 4.9, *Hazards and Hazardous Materials*), **MM 4.15-1** (Section 4.15, *Public Services*), and **MM 4.17-4** (Section 4.17, *Transportation and Traffic*). These mitigation measures would in summary: require:

- Preparing a Soil Erosion and Sedimentation Control Plan
- Preparing a Spill Prevention Control and Countermeasures Response Plan
- Testing for leaks and remediation
- Providing methods to avoid spills and minimizing impacts in the event of a spill through procedures for handling and disposing hazardous materials
- Safely applying nontoxic, approved herbicides as approved by the CDFW and USFWS
- Preparing/providing a Fire Safety Plan that is approved by the Kern County Fire Department
- Preparing/providing a Construction Traffic Control Plan that is approved by the Kern County Public Works Department

Implementing these mitigation measures would reduce impacts to the public or environment through the routine transport, use, or disposal of hazardous materials and through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

The Project site is not within 0.25 mile of an existing or proposed school and is not included on a list of hazardous materials sites. The Project, and in turn, the Reduced Footprint Alternative, is however within the Kern County Airport Land Use Compatibility Plan. The nearest aircraft operation facility identified by the Kern County Airport Land Use Compatibility Plan (ALUCP) is the Meadows Field Airport, a public airport located approximately 0.6 mile west of the Project site. As such, implementation of **MM 4.9-10** would mitigate potential impacts by ensuring compliance with requirements and regulations of the Federal Aviation Administration and the County's Planning and Natural Resources Department for both the Project and the Alternative.

Similar to the project, the Reduced Footprint Alternative is not anticipated to physically interfere with emergency vehicle access or personnel evacuation from the site during construction or operation of this alternative. As with the project, the Reduced Footprint Alternative would implement **Mitigation Measure MM 4.17-4** (Section 4.17, *Transportation and Traffic*), which requires preparation and submittal of a Construction Traffic Control Plan and would provide further assurances for emergency access.

As it relates to wildland fires, the Project site is not within an area of high or very high fire hazard. **Mitigation Measure MM 4.15-1** (Section 4.15, *Public Services*) would be implemented which includes the development and implementation of a fire safety plan for construction and operation

of the project in the event of a fire on the Project site. The Reduced Footprint Alternative would have less than significant impacts, similar to the Project.

Impacts under the Reduced Footprint Alternative and the Project would result in less than significant impacts after implementing mitigation measures, and the potential impacts from hazards and hazardous materials under the Reduced Footprint Alternative would be similar to the Project.

Hydrology and Water Quality

Similar to the project, the Reduced Footprint Alternative would be required to implement **Mitigation Measure MM 4.7-8**, which would require preparation of an Erosion and Sedimentation Control Plan and associated BMPs to prevent the occurrence of soil erosion and discharge. This alternative would also be required to implement **Mitigation Measure MM 4.9-3**, which requires the provision of a Hazardous Materials Business Plan. Implementing these mitigation measures would reduce impacts related to the following:

- Violating water quality standards or waste discharge requirements
- Substantially altering drainage patterns
- Creating or contributing runoff water that would exceed the capacity of existing or planned stormwater drainage systems
- Placing the project within a 100-year flood hazard area

As it relates to groundwater supplies, overall construction and operation-related water requirements under the Reduced Footprint Alternative would be reduced under this alternative as compared to the Project, as less grading would be involved during construction, and operation would involve a smaller building as compared to the Project. Through **Mitigation Measures MM 4.10-1** and **MM 4.10-2**, as with the Project, the Reduced Footprint Alternative would also not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality. Nor would the alternative place housing in flood hazard areas or expose people or structures to flood risks.

Additionally, **MM 4.19-3** and **MM 4.19-4** (Section 4.19, *Utilities and Service Systems* includes full mitigation measures) would also require information and tracking via water meters on any groundwater used for project operation. Therefore, this alternative would not substantially deplete ground water supplies or interfere substantially with groundwater recharge. Furthermore, this alternative would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan as the Reduced Footprint Alternative would require implementation of BMPs and drainage control requirements that would be consistent with the Basin Plan.

The Project site is located well inland and far from the ocean or any enclosed or semi-enclosed water body such that there would be no potential threat from tsunami or seiche hazards, and impacts would be less than significant.

Overall, impacts related to hydrology and water quality would be less than significant with implementation of mitigation measures similar to those implemented under the Project. The Reduced Footprint Alternative would have a proportionally lessened impact related to hydrology and water quality compared to the Project due to the reduced footprint, which would result in reduced grading activities and would reduce the amount of impervious surface compared to the project.

Despite the basin being currently overdrawn and the district's GSP being deemed inadequate along with the other Kern County subbasin plans where the other similar known and unknown projects could occur, the Project is not contributing to the cumulative impact of any use of groundwater in the area, and therefore cumulative impacts are considered less than significant after all feasible and reasonable mitigation for both the Project and the Reduced Footprint Alternative.

Land Use Planning

The Project site has a general plan designation of Light Industrial and zone classification of M-1 PD H (Light Industrial – Precise Development Combining – Airport Approach Height Combining). While the footprint would be reduced, development of the Reduced Footprint Alternative would still require entitlements for a PD Plan and ZV to operate the warehouse and distribution facility on the Project site.

The Reduced Footprint Alternative would be located in the same area as the Project, which is within the Sphere of Influence of the Meadows Field Airport, located approximately 0.6 mile west of the Project. As such, **MM 4.11-1** and **MM 4.11-2** would reduce potential conflicts with airport operation frequencies and air space to less than significant. Impacts would be less than significant with mitigation under this alternative. Land use and planning impacts would be similar under the Reduced Footprint Alternative when compared to the Project.

Mineral Resources

According to the California Geological Survey, the Project site is not located on lands classified as a Mineral Resource Zone (MRZ), and there are no wells within the Project site. So, development of the Reduced Footprint Alternative would not result in the loss of availability of a known mineral resource or locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, impacts would be less than significant under the Reduced Footprint Alternative and would result in similar impacts related to mineral resources compared to the Project.

Noise

The amount of on-site construction equipment for this alternative is assumed to be similar to the Project. As with the Project, construction activities associated with the Reduced Footprint Alternative would not result in any impacts related to noise levels and would not exceed existing thresholds. Under the Reduced Footprint Alternative, the extent and duration of construction activities would be reduced by 30%, in turn proportionally reducing the duration of noise associated with the Project by 30%. Therefore, noise impacts under the Reduced Footprint Alternative would be less than significant and less than the Project.

For operational activities, the Project would not generate noise that would surpass any standards or thresholds set by the County. Under the Reduced Footprint Alternative, Project operations would be reduced by 30%, and thus operational noise would be reduced by 30% as well. Therefore, operational noise impacts under the Reduced Footprint Alternative would not result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards with similar implementation of **Mitigation Measure MM 4.13-1** through **MM 4.13-4**. Impacts would be less than significant and less than the Project.

The vibration levels at the nearest residences would not reach the vibration level threshold for older residential structures during construction. Operation of the Reduced Footprint Alternative would involve worker truck trips that would be a sufficient distance from structures. Therefore, vibration impacts would be minimal and are not expected to have any measurable effect on the adjacent off-site sensitive receivers.

Based on the above, this alternative is expected to result in less than significant Project-related construction noise, construction, vibration, and operational noise impacts. These impacts would be less than those of the Project given the reduced area of development under the Reduced Footprint Alternative. However, cumulative noise impacts due to the temporary increase of construction noise would remain significant and unavoidable, despite being proportionally less than the Project.

Population and Housing

Similar to the Project, the Reduced Footprint Alternative would require a temporary workforce that is assumed to be similar in size to that required for the Project. The construction workforce would commute to the Project site from local communities. Further, given the unemployment rate and vacant housing rate in unincorporated areas of Kern County, sufficient workers and housing would be available to accommodate any direct population growth induced by the Project. Additionally, as with the Project, the Reduced Footprint Alternative would implement **Mitigation Measure 4.15-2** (Section 4.15, *Public Services*), encouraging a 50% local workforce for construction, thereby reducing the number of workers commuting into the area.

During operation, the workforce for the Reduced Footprint Alternative would be smaller than for the Project. Therefore, impacts under the Reduced Footprint Alternative would be less compared to the Project.

With regard to displacing housing units or people, the Project site is an undeveloped field with no existing structures within the boundaries for proposed development. There are no residences or people living on the Project site. Therefore, the Reduced Footprint Alternative would not displace any houses or people; Similar to the Project, no impact would occur.

Public Services

Similar to the Project, construction of the Reduced Footprint Alternative would result in a number of construction workers on the Project site and a corresponding increase in fire service demands. However, the Reduced Footprint Alternative would result in a shortened construction period due to the alternative's reduced size. The alternative would be required to implement **Mitigation Measure MM 4.9-11**, which would require the preparation of a fire safety plan. During operation,

the Reduced Footprint Alternative would require fewer on-site, permanent employees as compared to the Project. Impacts related to fire protection would be less than significant with mitigation for both the Project and Reduced Footprint Alternative.

With regard to law enforcement protection, increase in construction traffic would be temporary and thus would not have a significant adverse effect on the Kern County Sheriff's Office's (KCSO's) protective service provision or the California Highway Patrol's (CHP's) ability to patrol the highways. In addition, fencing would be installed around the perimeter of the Project site.

During operation of this alternative, as with the Project, the additional volume of worker vehicles and trucks accessing the Project site during daily operations may result in a decrease in level of service (LOS) at some surrounding intersections and may cause some delay in the flow of traffic (Section 4.17, *Transportation and Traffic*). Therefore, the Reduced Footprint Alternative would also implement **Mitigation Measures MM 4.17-1** through **MM 4.17-3**. **MM 4.17-1** would reduce LOS deficiency through the construction of intersection improvements. Any additional improvements would be addressed through the payment of Transportation Traffic Impact Fees required by **MM 4.17-2**. To further reduce traffic delay, **MM 4.17-3** would require the preparation of a Transportation Demand Management program to reduce VMT associated with employee trips. Therefore, impacts to the CHP would be less than significant with implementation of **MM 4.17-1** through **MM 4.17-3**, similar to the Project.

Furthermore, the Reduced Footprint Alternative would similarly implement **Mitigation Measures MM 4.15-1** and **MM 4.15-2**, requiring coordination with the County of Kern to pay necessary sales and use taxes, as well as make efforts to hire 50% of its workforce from the local communities. Thus, impacts would be less than significant under this alternative following implementation of similar mitigation measures proposed for the Project. Impacts related to public services would be similar compared to the project.

Recreation

Similar to the Project, the construction workforce would commute to the Project site each day from local communities under the Reduced Footprint Alternative. As a result, the Reduced Footprint Alternative would similarly not induce an increase in resident population that would contribute to an increased use of existing neighborhood or regional parks or other recreational facilities. Similarly, the Reduced Footprint Alternative would not include the construction of residences and would therefore not substantially increase the population. Impacts would be less than significant and similar to the Project.

With regard to the inclusion of the construction or expansion of recreational facilities, the Reduced Footprint Alternative would, like the Project, consist of a warehouse facility and accompanying structures and would not include recreational facilities or require the construction or expansion of facilities. Similar to the Project, no impact would occur. ,

Based on the above analysis, impacts would be less than significant. Given that both the Project and the Reduced Footprint Alternative would not include the construction of residences or recreational facilities, impacts related to recreation would be similar compared to the Project.

Transportation and Traffic

Similar to the Project, construction of the Reduced Footprint Alternative would not significantly impact local traffic, with the implementation of mitigation. **Mitigation Measures MM 4.17-1** through **MM 4.17-3**, require the Project proponent to do the following:

- Construct intersection improvements to reduce a LOS deficiency for consistency with MBGP policy
- Pay the required Transportation Traffic Impact fees
- Implement a Transportation Demand Management program to reduce project-related VMT

With regard to consistency with CEQA Guidelines Section 15064.3(b), operational trips would be reduced under this Alternative as compared to the Project as a result of the reduced size of the facility. Under both the Project and Reduced Footprint Alternative, VMT would not exceed countywide thresholds.

The Reduced Footprint Alternative would be subject to the requirements outlined in the Kern County Public Works Division Nine – Standards for Traffic Engineering. Chapter V of the document outlines requirements for line of sight, including uncontrolled intersections, alleys and minor driveways, controlled intersections, T-intersections, and landscaping. As with the Project, through the implementation of a Construction Traffic Control Plan and consistency with the standards outlined in Standards for Traffic Engineering, hazards due to geometric design features would be less than significant for the Reduced Footprint Alternative and would be similar to the Project.

With regard to emergency access, as this alternative would not cause a significant increase in congestion or significantly worsen the existing service levels at intersection roadways, the Reduced Footprint Alternative would have a less than significant impact on emergency access during construction and operation. As with the project, the Reduced Footprint Alternative would also be required to implement **Mitigation Measure MM 4.17-4**, which would provide further assurances for emergency access.

Based on the above, impacts would be less than significant. Given the reduction in operational trips and VMT under the Reduced Footprint Alternative as compared to the Project, the Reduced Footprint Alternative impacts related to transportation would be less.

Tribal Cultural Resources

Under the Reduced Footprint Alternative, overall construction and operational methods, workforce, and timing would be reduced when compared with the Project. There are no tribal cultural resources within the Project site or the surrounding area. Therefore, the Project would not cause a substantial adverse change in the significance of a tribal cultural resource. With implementation of **Mitigation Measures MM 4.5-1** through **MM 4.5-3** (Section 4.5, *Cultural Resources*) similar to the mitigation for the Project, impacts to tribal cultural resources under this alternative would be less than significant. However, the Reduced Footprint Alternative would result in less potential impact

related to tribal cultural resources compared to the Project due to the reduction in ground disturbance under this alternative.

Utilities and Service Systems

Eliminating 13.86 acres and 267,440 square feet from project development would result in reduced demand for utilities and service systems due to the smaller size of the development and associated infrastructure. Therefore, all construction and operational methods, workforce, and timing for the Reduced Footprint Alternative would be reduced in comparison with the Project.

As with the Project, the construction and operation of a warehouse, distribution facility, and associated infrastructure would result in the generation of wastewater, and require new connections for water, wastewater, electrical power, and telecommunications. The Reduced Footprint Alternative, similar to the Project, would be required to implement **Mitigation Measures MM 4.19-1** through **MM 4.19-3** in order to reduce all impacts associated with the construction of new water, stormwater, wastewater, and electricity connections and utility line extensions. Similar to the Project, the Reduced Footprint Alternative would be required to report any groundwater usage associated with project operation and to equip all groundwater wells on-site with water meters as outlined in **MM 4.19-4**.

The Reduced Footprint Alternative would generate less solid waste compared to the Project. However, similar to the Project, the Reduced Footprint Alternative would be required to implement **Mitigation Measure MM 4.19-5**, which would require the provision of a recycling coordinator to ensure the separation and proper disposal of recyclable materials and solid waste during construction.

The Reduced Footprint Alternative would reduce the size of the development and thereby operational water demands in comparison to the Project. As described in Section 4.19, *Utilities and Service Systems*, the Oildale Mutual Water Company (OMWC) would serve the Project. According to the Project's Water Supply Assessment (Appendix H.2), OMWC would be able to meet the Project's water demand under projected normal, single dry, and multiple dry years. Therefore, OMWC would be able to meet the lesser demands of the Reduced Footprint Alternative, providing sufficient supply to the Project site. However, as the basin is currently over drafted and the District's GSP has been deemed inadequate along with the other Kern subbasin plans where the other similar known and unknown projects could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible and reasonable mitigation for both the Project and the alternative.

This Reduced Footprint Alternative is expected to result in similar cumulative impacts compared to the Project in regard to utilities and service systems with implementation of **Mitigation Measures MM 4.19-1** through **MM 4.19-5**. When comparing cumulative impacts, the impacts would be less than the Project in regard to water demand, wastewater, and solid waste generation due to the reduced footprint and number of employees. However, the Project would be located within the critically overdrafted Kern Subbasin and contribute to the water demand of the region. Therefore, cumulative impacts relative to water supply would be significant and unavoidable, similar to the Project.

Wildfire

As with the Project, this alternative is not classified as being within a high fire hazard severity zone and is not anticipated to physically impede the existing emergency response plans, emergency vehicle access, or personnel access to the site. The Project site is not located along an identified emergency evacuation route and is not identified in any adopted emergency evacuation plan. Also, in compliance with applicable Fire Code and Building Code requirements, construction and operations managers and personnel would be trained in fire prevention and emergency response. Therefore, the Reduced Footprint Alternative would not substantially impair an adopted emergency response plan or emergency evacuation plan.

The Project site is designated as an Unzoned Local Responsibility Area (LRA), which is considered an area with low fire frequency. The potential for wildfire on the Project site is not considered high. Similar to the project, the Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.9-11** (Section 4.9, *Hazards and Hazardous Materials*), which would require the development and implementation of a fire safety plan for use during construction and operation, further reducing the fire risks on-site. As such, impacts under this alternative related to exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire would be less than significant.

With regard to the installation or maintenance of associated infrastructure, the Project would construct new internal roads from the existing road network to the Project that would act as access roads in the event of an emergency. Furthermore, the Project would extend service laterals for potable water from an existing water line located within Wible Road. A new substation would be located on-site and would provide power generation for the Project.

The Reduced Footprint Alternative would be required to implement a Fire Safety Plan as outlined in **Mitigation Measure MM 4.9-11** (Section 4.9, *Hazards and Hazardous Materials*) in order to ensure potential wildfire impacts, including flooding, landslides, or other drainage changes related to installation or maintenance of associated infrastructure are reduced. As such, similar to the Project, the Reduced Footprint Alternative would not include significant risks related to downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes.

Additionally, as with the Project, to ensure that operational traffic would not impair an emergency response plan or conflict with an emergency evacuation plan, **Mitigation Measures MM 4.17-1** through **MM 4.17-4** (Section 4.17, *Transportation and Traffic*) would be required. **Mitigation Measure MM 4.17-4** would require the establishment of a Construction Traffic Control plan to ensure that emergency access is maintained at all times during construction, and that appropriate detours are provided as necessary. During operation of the alternative, **MM 4.17-1** would require the project applicant to construct intersection improvements to reduce traffic delay. Any additional improvements would be addressed through the payment of Transportation Traffic Impact Fees required by **MM 4.17-2**. To further reduce congestion at intersections, **MM 4.17-3** would require the preparation of a Transportation Demand Management program to reduce VMT associated with employee trips. Therefore, as with the Project, the Reduced Footprint Alternative would have a less than significant impact to emergency or evacuation plans during both construction and operation.

With implementation of similar mitigation proposed for the Project, this alternative is expected to result in less than significant impacts to wildfire, similar to the Project. The Reduced Footprint Alternative would likely result in similar impact due to the reduced footprint compared to the Project.

Comparison of Impacts

Because of the approximate 30% reduction in project size for the Reduced Footprint Alternative, all construction and operational methods, workforce, and timing would be proportionally reduced in comparison with the Project. Accordingly, the Reduced Footprint Alternative would result in less or similar impacts for the majority of environmental issue areas. Notably, this alternative would not eliminate cumulative significant and unavoidable impacts associated with air quality, GHG emissions, noise (cumulative due to temporary noise increase from construction), and utilities and service systems (water supply).

Relationship to the Project Objectives

The Reduced Footprint Alternative would achieve all of the Project objectives listed above in Section 6.2, *Proponent Submitted Project Objectives*, but to a lesser degree than the Project due to its reduced size. This alternative would be a visually similar state-of-the-art warehouse and distribution facility sited near a major transportation corridor. By adhering to the development standards set forth in the Kern County Zoning Ordinance, this alternative would implement a visually appealing industrial project with substantial landscaping for added visual buffer from the nearest residential developments.

Additionally, this alternative would meet regional demand for Class A industrial facilities, which addresses local traffic patterns and needs and promotes land use compatibility with adjacent airport related uses. This alternative would contribute to the local economy through new capital investment, the creation of new employment opportunities, expansion of the tax base, economic growth and development, and payment of development fees. Overall, the location of this alternative is consistent with current and future market demands which minimizes conflicts with surrounding uses.

As mentioned above, the Reduced Footprint Alternative would achieve all of the Project objectives listed in Section 6.2, only to a lesser extent than the Project due to its reduced scale.

6.7.3 Alternative 3: Eastern Kern/Mojave Specific Plan Project Alternative Site

Alternative project sites are typically evaluated in CEQA documentation to avoid, reduce, or eliminate significant and unavoidable impacts associated with the Project by considering the proposed development in an entirely different location. To be considered, an alternative site must have the capability of fulfilling all or most of the objectives of the Project, and thus must be large enough to support a similar facility and have similar ease of access to transportation corridors.

However, an alternative site may not meet the basic objectives of the Project, as listed in Section 6.2, *Proponent Submitted Project Objectives*, and likewise, may not avoid or substantially reduce the environmental impacts of the Project.

Alternative 3, the Alternative Site Location – Eastern Kern County/Mojave Specific Plan, proposes the same project: construction and operation of a 923,130 square-foot, two building single-story warehouse distribution facility and associated improvements, but sited in a different location within eastern Kern County, specifically in the Adopted Mojave Specific Plan Area, on a vacant lot. This alternative would be located near State Route 58 (SR 58) in the Mojave Desert, which serves as a major transportation corridor compared to SR 99 within the San Joaquin Valley. Alternative 3 would also include improvements to off-site roadways, utilities, water treatment facilities, gas lateral extensions, storm drainage systems, and associated infrastructure, similar to the Project.

The Mojave Specific Plan Area encompasses approximately 31,000 acres in eastern Kern County, including the unincorporated community of Mojave, and functions as the transportation hub of eastern Kern County. Alternative 3 would operate at the same capacity as the Project. Required entitlements for Alternative 3 would be dependent on the site selected, noting preference would be for a site similarly designated for industrial use. Alternative 3 would develop the same land area and all of the Project components. Approval of Alternative 3 would be required to comply with the Mojave Specific Plan.

Environmental Impact Analysis

Aesthetics

With regard to impacts related to scenic vistas, there are no officially designated scenic vistas or State scenic highways or potentially eligible highways in the vicinity of the Mojave Specific Plan Area, although, portions of Route 58 and Route 14 are listed as an eligible State scenic highway. Although the Mojave Specific Plan is within the greater desert landscape compared to the Project being within the Valley, both the Project and the Alternative would moderately change the existing character of their respective sites as seen from surrounding roadways.

Alternative 3 would be required to implement **Mitigation Measures MM 4.1-1 through MM 4.1-3**, which would be incorporated to reduce visual impacts that would occur from Project colors and features and ensure that the Project would utilize landscaping to upgrade the visual character and screening of industrial uses. Furthermore, the Mojave Specific Plan Area is characterized by industrial, commercial, and extractive resource land uses. This Alternative would be required to adhere to Mojave Specific Plan policies to ensure compatible land uses throughout the plan area, specifically between industrial and residential uses. Therefore, Alternative 3 would maintain the existing character planned for Mojave Specific Plan Area and would not introduce a new incompatible aesthetic feature. With mitigation and adherence to plan policy, the Alternative would conform to the surrounding character, and therefore, impacts would be less than significant, similar to the Project.

Despite the new location of the warehouse and associated infrastructure under Alternative 3, the potential for impacts related to light and glare during construction and operation would be similar

to the Project. As such, this alternative would be required to implement **Mitigation Measure MM 4.1-4**, which includes demonstrating consistency with the applicable provisions of the Outdoor Lighting – Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance). This would ensure that the alternative can demonstrate effective glare minimization and the utilization of nonreflective materials for on-site buildings. Impacts related to light and glare under Alternative 3 would be less than significant, similar to the Project.

Cumulative development in the area would consist of industrial and residential uses, guided by the Mojave Specific Plan. Despite the change in location under Alternative 3, increased development of industrial use would still alter the existing undisturbed landscape from the original form. However, similar to the Project, the Mojave Specific Plan would ensure all reasonably foreseeable industrial projects are compatible with surrounding uses through aesthetic design guidelines such as lighting and landscaping to achieve consistent character. Furthermore, reasonably foreseeable projects within the plan area would go through project-level environmental review and would be held to the same development standards as Alternative 3. The incorporation of consistent colors of surrounding landscape and vegetation screening as required by **Mitigation Measures MM 4.1-1** through **MM 4.1-3** would further ensure visual quality is consistent with policies in the Mojave Specific Plan for industrial uses. Therefore, like the Project, cumulative impacts to visual character and applicable policies under Alternative 3 would be less than significant.

Agricultural and Forestry Resources

For this alternative, impacts to agricultural resources would be similar to the Project. And as with the Project, Alternative 3 would not require the conversion of Prime Farmland to nonagricultural uses, particularly with consideration of land that is similarly zoned and designated for industrial use by the Mojave Specific Plan. In the Mojave Specific Plan Area, there are no Prime or Unique Farmlands, Farmlands of Statewide Importance, or cultivated agricultural lands, nor are there any forestry lands. Therefore, Alternative 3 would not require the conversion of agricultural or forestry lands to urban uses as the Alternative would be on industrially zoned and designated land.

There are currently no forestry resources or designated forest lands or timberlands located in the Mojave Specific Plan. Therefore, impacts to agricultural and forestry uses under Alternative 3 are not applicable, and there would be no impacts. Alternative 3 would have similar impacts compared to the Project because Alternative 3 would also not require the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural uses. Project and cumulative impacts would be similar to the Project and would have no impact on agricultural or forestry resources.

Air Quality

The use of construction vehicles, heavy equipment operation, and worker carpool trips would be similar compared to the Project. This alternative would also require the implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5**, adjusted with respect to the requirements of Eastern Kern Air Pollution Control District (EKAPCD) in order to reduce the severity of construction-related emissions. As similar heavy equipment on a daily basis would be required under this alternative as with the project, impacts would be less than significant with mitigation for

construction impacts. Overall, based on the above, with implementation of **Mitigation Measure MM 4.3-1** through **MM 4.3-5**, any potential impacts to criteria pollutants designated as nonattainment within the EKAPCD would be reduced and construction of Alternative 3 would not result in a conflict with or obstruct implementation of applicable air quality plans. Therefore, impacts from construction would be less than significant. Operational emissions would be similar to the Project, and the alternative is assumed to create a similar number of daily passenger and truck trips. These emissions would be below the EKAPCD's regional significance threshold for all pollutants. As such, operational impacts would be less than significant and similar to the Project.

With regard to exposure to sensitive receptors, the impact of Alternative 3 cannot be predicted without knowledge of the specific alternative site and the locations of nearby sensitive receptors. While the proposed **Mitigation Measures MM 4.3-6** through **MM 4.3-10**, in addition to previously discussed **MM 4.3-1** through **MM 4.3-5**, would reduce impacts from pollutant concentrations during construction, it is conservatively assumed that impacts would be significant and unavoidable, similar to the Project.

With regard to objectionable odors, neither construction nor long-term operations of the Project are anticipated to generate any significant objectionable odors. Alternative 3 would construct and operate the same business activities as the Project, and similarly would not generate any significant objectionable odors. Impacts would thus be similar to the Project and less than significant.

Similar to the Project, cumulative construction impacts would be significant and unavoidable. However, Alternative 3 would fall under the jurisdiction of the EKAPCD, which has higher thresholds for air quality impacts. As such, Alternative 3 would still result in significant and unavoidable impacts, however impacts would be less than the Project.

Overall, even with implementation of similar mitigation proposed for the Project, impacts to Project and cumulative air quality under this alternative would likely remain significant and unavoidable. Alternative 3 would result in similar overall impacts related to air quality compared to the Project.

Biological Resources

With regard to biological resources, without knowledge of the specific site and accompanying biological resources and due to the lack of detailed biological resource surveys and field reconnaissance, impacts could be greater than the Project. However, under the Mojave Specific Plan, Alternative 3 would be required to comply with Policy 4.4.3, which requires a biological survey be conducted. Alternatively, a project applicant may demonstrate the site is urbanized with nonsensitive status through the identification of applicable studies. Although the widely undeveloped nature of Eastern Kern County could lend itself to greater impacts on potential habitat for sensitive desert species, the prospective Alternative 3 Project site would likely be supported by the Department if only surrounded by existing and established industrial and commercial uses that are considered inhospitable habitat for candidate, sensitive, or special status species.

In addition to the provisions set forth in the Mojave Specific Plan, Alternative 3 would implement similar Mitigation Measures modeled after **MM 4.4-1** through **MM 4.4-12**, requiring retention of a qualified Lead Biologist, Worker Environmental Awareness Training Programs, preconstruction

surveys and incidental take permits tailored for desert species and their potentially suitable habitats. Therefore, impacts would remain less than significant and similar to the Project.

With regard to conflicts with local policies or Habitat Conservation Plans, impacts would be site-specific based on the location chosen for the Project. As such, Alternative 3 would be required to comply with Policy 4.4.1 through Policy 4.4.4., which ensure new developments carried out under the Mojave Specific Plan would not conflict with local policies or Habitat Conservation Plans. As such, project and cumulative impacts would be similar to the Project.

Overall, project impacts under Alternative 3 would be assumed to be less than significant, with compliance of the Mojave Specific Plan and implementation of desert-specific Mitigation Measures modeled after **MM 4.4-1** through **MM 4.4-12**. Alternative 3 would be required to comply with the policies set forth in the Mojave Specific Plan to promote the retention of natural settings and use of native or adaptable vegetation as special-status species have the potential to occupy the chosen Alternative 3 Project site. However, given the number of present and reasonably foreseeable future development projects in the region, Alternative 3 would make a considerable contribution to cumulative biological resource impacts, even with mitigation. Therefore, cumulative impacts would be significant and unavoidable, greater than the Project.

Cultural Resources

Because Alternative 3 would include similar improvements to the chosen Project site, it would require ground disturbance at a similar level as the Project. This Alternative would be required to implement similar mitigation measures as described in **Mitigation Measures MM 4.5-1** through **MM 4.5-4** for the Project, as well as to adhere to all federal, State, and local regulations governing cultural resources, including California Penal Code, Section 622.5. In addition, Alternative 3 would be required to comply with Policy 7.2.1 and 7.2.2 of the Mojave Specific Plan, which support private efforts to enhance and promote historical and community resources and encourage participation by all members of the community in activities which promote the community and create local pride.

Although Alternative 3 lacks site specific historical or archaeological literature reviews and site surveys, previous literature analyses initiated through the development of the Mojave Specific Plan have revealed the presence of approximately 61 archaeological sites, the location of which were not identified due to the sensitivity of the sites. As explained in the Mojave Specific Plan Final EIR, development activity within the Specific Plan area has the potential to disturb/displace some of these sites. The extent of archaeological resources or potential impact to these resources cannot be determined without subsurface excavation. Since the Project area consists of large undeveloped areas, additional, unidentified archaeological remains could be present and potentially impacted by future development. However, with compliance with the Specific Plan Policies and Mitigation Measures mentioned above, and the development review process, potential impacts to cultural resources under Alternative 3 are assumed to be less than significant, similar to the Project.

As described above, without site specific historical and archaeological literature reviews and site reconnaissance, it is unknown whether Alternative 3 would have been used for purposes of human burial in the recent or distant past. However, in the unlikely event that human remains are

inadvertently discovered during project initial implementation activities, this alternative would comply with Health and Safety Code Section 7050.5, which includes requirements similar to **Mitigation Measure 4.5-4**, and would ensure that any human remains encountered are appropriately addressed and impacts would be less than significant and similar to the Project.

Overall, Alternative 3 would result in similar cultural resources impacts compared to the Project, with the compliance of the policies set forth in the Mojave Specific Plan, as well as the implementation of similar mitigation measures. Impacts would be less than significant, similar to the Project.

Energy

With regard to significant consumption of energy resources, the Project is anticipated to have a less than significant impact to energy consumption during construction and operational activities through **Mitigation Measures MM 4.3-3** (Section 4.3, *Air Quality*), **MM 4.6-1**, **MM 4.6-2**, **MM 4.8-1**, and **MM 4.8-2** (Section 4.8, *Greenhouse Gas*) as well as to be in compliance with all State energy efficiency policies. Alternative 3 would be expected to implement similar energy efficient technologies within the project design. Given the similar size and activities planned under Alternative 3, it is therefore assumed that impacts would be similar to the Project and less than significant.

Geology and Soils

With regard to direct or indirect potential substantial effects involving earthquakes, ground shaking, ground failure, and landslides, Alternative 3 would have similar effects to the Project. According to the Mojave Specific Plan EIR, the community of Mojave is located in one of the most active seismic regions of the United States. All development must therefore be constructed in conformance with Seismic Zone 4 standards of the Uniform Building Code. Severe ground shaking would be anticipated in the event of movement along any of the major regional faults, such as the San Andreas, Garlock, Sierra Nevada, and Willow Springs-Rosamond. Liquefaction may occur in certain geologic and hydrologic environments, mainly areas where sands and silts were deposited in the last 10,000 years, and where groundwater is within 30 feet of the surface.

However, as mentioned within the Specific Plan EIR, the County will continue to enforce existing engineering requirements for new development pursuant to the Mojave Specific Plan. Compliance with existing standards and regulations would reduce impacts to development within the Mojave Specific Plan area to a less than significant level. As such, Alternative 3 would be located in an area similar to the Project, and impacts would likewise be similar to the Project and less than significant.

Furthermore, Alternative 3 would adhere to requirements of the NPDES, which includes requirements similar to **Mitigation Measure MM 4.7-8**, and **MM 4.10-1** (Section 4.10, *Hydrology and Water Quality*) and would comply with Kern County Grading Code (Section 17.28.070), which includes requirements to address potential soil erosion and loss of topsoil. Additionally, no septic tanks are proposed under this alternative, similar to the Project. Impacts would be less than significant and similar to the Project.

As it relates to unique paleontological resource or site or unique geologic feature, Alternative 3 would adhere to all applicable federal, State, and local regulations governing paleontological resources, including Public Resources Code Section 5097.5 and Section 30244. In addition, Alternative 3 would be required to adhere to Policy 4.5.1 through Policy 4.5.2 of the Mojave Specific Plan, which will ensure the conservation of known areas of mineral resources by limiting encroachment of incompatible urban uses. Therefore, impacts to paleontological resources would be less than significant and similar to the Project. Based on the above, impacts to geology and soils would be less than significant under Alternative 3 due to this Alternative maintaining all characteristics of the Project. Impacts would be similar to the Project.

Greenhouse Gas Emissions

With regard to generation of GHG emissions, the Project would result in the temporary generation of emissions associated with various construction activities, including site preparation, grading, paving, building construction, and the application of architectural coatings. GHG emissions would be largely associated with off-road equipment use, as well as on-road vehicle operations associated with workers commuting to and from the Project site and haul-truck trips. Similar to the Project, the Alternative Site Location Alternative would be required to implement **Mitigation Measures MM 4.3-3** and **MM 4.3-5** (Section 4.3 *Air Quality*), **MM 4.6-1** and **MM 4.6-2** (Section 4.6, *Energy*), and **MM 4.17-3** (Section 4.17, *Transportation and Traffic*) which would ensure the project remains consistent with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHG emissions. Additionally, Alternative 3 would be required to use electric-powered off-road equipment and target a construction waste diversion rate of 80% as part of **MM 4.8-1** and provide electrical hookups for TRUs as part of **MM 4.8-2** to further reduce GHG emissions.

Similar to the Project, Alternative 3 would have significant and unavoidable cumulative GHG impacts. However, impacts are anticipated to be less than the Project due to Alternative 3 being located on/near major highways or transportation corridors, including the Mojave Airport, State Routes 58 and 14, and the Southern Pacific Railroad line, which all lie within the Mojave Specific Plan area. Thus, VMT, and accordingly GHG emissions, may be reduced under this Alternative. As such, cumulative impacts would still be significant and unavoidable despite implementation of mitigation; however, impacts would be less than those of the Project.

Hazards and Hazardous Materials

With hazardous materials, Alternative 3 would be similar to the Project in the scope of its handling of hazardous materials and exposure of the public to emissions or vectors. Alternative 3 would require limited use of hazardous materials for construction and operational purposes (for example, vehicle fuel and maintenance fluids, on-site cleaning materials and solvents, herbicides, and landscaping maintenance), and these activities would adhere to **Mitigation Measure MM 4.9-3**, which includes the preparation of a Hazardous Materials Business Plan. The Mojave Specific Plan Area is designated as an Unzoned LRA by the California Department of Forestry and Fire Protection (CAL FIRE), and the primary land use within the scope of Alternative 3 as a warehouse and distribution facility would remain the same as the Project, as it would not generate vectors or include agricultural waste.

In addition, Alternative 3 would be required to comply with Policy 4.2.3 of the Mojave Specific Plan, which requires industrial and commercial businesses to comply with the County Hazardous Waste Management Plan. As such, with adherence to the policies set forth in the Mojave Specific Plan, and implementation of similar mitigation measures of the Project, Alternative 3 would result in less than significant impacts, similar to the Project.

Additionally, the Mojave Air and Space Port is located within the boundaries of the Mojave Specific Plan. It is similarly assumed that, due to the lack of a specific alternative site, Alternative 3 could be located within 0.25 mile of the active airport. However, any development within the jurisdiction of the ALUCP would be subject to the standards and requirements held within it. As such, impacts would be reduced to a less than significant level and would be similar to the Project. Overall, Alternative 3 would have a similar impact as compared to the Project, with the implementation of similar mitigation measures and adherence with the Mojave Specific Plan resulting in such impacts to be less than significant.

Hydrology and Water Quality

Development within the Mojave Specific Plan area could result in erosion and sedimentation due to construction related activities that could impact groundwater quality. As mentioned within the Mojave Specific Plan EIR, all new projects within the Specific Plan area would be required to implement BMPs pursuant to National Pollutant Discharge Elimination System (NPDES) requirements, as mentioned above. Implementation of existing NPDES measures would avoid impact during construction of individual projects, such as Alternative 3, on a project and cumulative basis.

Likewise, development within the Specific Plan area has the potential to result in long-term operational impacts to water quality due to the addition of urban pollutants and the increase in site activities. However, all regulated new development, including Alternative 3, would be required to implement BMPs per the NPDES program to address capture and treatment of runoff.

Similar to the project, Alternative 3 would include the completion of a NPDES completion form and would be required to implement **Mitigation Measure 4.7-8** (Section 4.7, *Geology and Soils*), which would require the preparation of an Erosion and Sedimentation Control Plan, including BMPs to prevent the occurrence of soil erosion and discharge. Alternative 3 would also be required to implement **Mitigation Measure MM 4.9-3** (Section 4.9, *Hazards and Hazardous Materials*), which would require the provision of a Hazardous Materials Business Plan. Additionally, as with the Project, Alternative 3 would implement **MMs 4.10-1** and **4.10-2** (Section 4.10, *Hydrology and Water Quality*), requiring the Project proponent to implement a Stormwater Pollution Prevention Plan and complete a hydrologic study and final drainage plan to minimize potential runoff increases from the Project site. Compliance with applicable regulatory requirements and implementation of the aforementioned mitigation measures would serve to reduce potential impacts related to impacts related to violating water quality standards or waste discharge requirements, substantially altering drainage patterns; or creating substantial soil erosion. Impacts would be less than significant and similar to the Project.

As it relates to groundwater supplies, Alternative 3 would implement **MM 4.19-3** and **MM 4.19-4** (Section 4.19, *Utilities and Service Systems* for full mitigation measures) to require information and tracking via water meters on any groundwater used for project operation. However, as the Mojave Specific Plan is not within a groundwater basin that is considered over drafted as is the case with the Proposed Project within the valley region, compliance with applicable regulatory requirements mentioned above and listed Mitigation Measures would result in cumulative impacts regarding groundwater to be less than significant, similar to the Project.

Similar to the Project, Alternative 3 would feature retention basins to facilitate groundwater recharge. Alternative 3 would be located well inland and far from the ocean or any enclosed or semi-enclosed water body such that there would be no potential threat from tsunami or seiche hazards and impacts would be less than significant. Overall, impacts related to hydrology and water quality would be less than significant with the implementation of similar mitigation measures, and is unlikely to result in effects to stormwater runoff or existing drainage patterns.

Land Use and Planning

With regard to land use consistency, Alternative 3 would be located within the Mojave Specific Plan area within Eastern Kern County, which is characterized by commercial and industrial uses. As mentioned in the Mojave Specific Plan EIR, new development would likely take place near existing developments and transportation corridors. Because the Specific Plan includes goals and policies to avoid or mitigate impacts to the existing Mojave environment, no physical division of the existing Mojave community is anticipated as new development occurs within the Specific Plan Area. As such, Alternative 3 would not have a high possibility of physically dividing an existing community or conflict with an existing land use plan, policy, or regulation. The Project site chosen in the Mojave Specific Plan area might or might not require changes in underlying Specific Plan or zoning, depending on the chosen location. As noted previously, selection of an alternative site that is similarly designated for industrial use would therefore allow the assumption that the impacts associated with Alternative 3 would be similar to the Project, and therefore less than significant.

Mineral Resources

According to the Mojave Specific Plan EIR, the Specific Plan area allows for mineral and petroleum exploration and extraction, primarily within an approximately 300-acre area to the northwest corner of the Specific Plan designated for mineral and petroleum uses. Additionally, several gravel pits are located within the eastern portion of the Specific Plan area. Gold and silver are also mined within a mile of the southwest boundary of the Specific Plan area at Soledad Mountain. As such, the potential for development within the Specific Plan area to affect these resources is potentially significant. It is unknown whether Alternative site would be located on a lot that contains active or inactive wells; however, County GIS data indicate that there are no mineral Assessor Parcel Numbers within the Mojave Specific Plan boundary. As a result, it is conservatively assumed that impacts to mineral resources would be similar for the Project.

Overall, due to the Alternative site's proximity to known mineral resources and the unknown status of current or past wells on the Project site, it is assumed that impacts would be less than significant.

Noise

Under this alternative, the number of on-site construction equipment is assumed to be the same as the Project, and construction activities under Alternative 3 would not result in any impacts related to noise levels and would not exceed existing thresholds. As with the project, operational activities under Alternative 3 would similarly result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards with similar implementation of **Mitigation Measures MM 4.12-1** through **MM 4.12-4**. Impacts would be less than significant.

The vibration levels at the nearest residences would not reach the vibration level threshold for older residential structures during construction. Due to the fact that the specific alternative site is not known, it is impossible to fully know whether operating Alternative 3 would involve worker truck trips that would be a sufficient distance (over 100 feet) from structures. However, Alternative 3 would likely be sited at an industrially designated location to avoid the need for a Specific Plan Amendment to the Land Use Element of the Mojave Specific Plan or a Zone Change. As a result, the alternative would be required to comply with Policy 3.8.4 of the Mojave Specific Plan that minimizes potential noise and health hazards through buffering, which would be utilized to separate service and heavy industry uses from any surrounding residences. Therefore, it is conservatively assumed that cumulative impacts would be significant and unavoidable due to the increased temporary noise due to construction, which is similar to the Project.

Population and Housing

Similar to the Project, Alternative 3 would require a temporary workforce that is assumed to be similar in size to that required for the Project. It is anticipated that the construction workforce would commute to the Project site from local communities. It is likewise assumed that given the unemployment rate and vacant housing rate in unincorporated areas of Kern County, a sufficient workforce and housing would be available to accommodate any direct population growth induced by Alternative 3. Additionally, as with the Project, Alternative 3 would implement **Mitigation Measure 4.15-2** (Section 4.15, *Public Services*), encouraging a 50% local workforce for construction, thereby reducing the number of workers commuting into the area for work. Therefore, impacts under Alternative 3 would be less than significant, similar compared to the Project.

Public Services

Similar to the project, construction of Alternative 3 would result in a number of construction workers on the Project site and increased fire service demands would occur during construction of this alternative. However, Alternative 3 would be required to implement **Mitigation Measure MM 4.9-12** (Section 4.9, *Hazards and Hazardous Materials*), which would require the preparation of a fire safety plan. During operation, the Project site would not require any additional employees to be on-site on a permanent basis. Implementation of **Mitigation Measure MM 4.14-1** would also reduce fire risks on-site during operation of Alternative 3. Impacts related to fire protection would be less than significant with mitigation for both the Project and Alternative 3.

With regard to law enforcement protection, the Project site would be located in a relatively remote location. As with the Project, the increase in construction traffic associated with Alternative 3

would be temporary and thus would not have a significant adverse effect on the KCSO protective service provision or CHP's ability to patrol the highways. In addition, security fencing would be installed around the perimeter of the Project site.

During operation of this alternative, as with the Project, the additional volume of worker vehicles and trucks accessing the Project site during daily operations may result in a decrease in LOS at some surrounding intersections and may incidentally cause some delay in the flow of traffic (Section 4.17, *Transportation and Traffic*). Therefore, Alternative 3 would also implement **Mitigation Measures MM 4.17-1 through MM 4.17-3**. **MM 4.17-1** which would reduce LOS deficiency through the construction of intersection improvements. Any additional improvements would be addressed through the payment of Transportation Traffic Impact Fees required by **MM 4.17-2**. To further reduce traffic delay, **MM 4.17-3** would require the preparation of a Transportation Demand Management program to reduce VMT associated with employee trips. Therefore, impacts to the CHP patrol would be less than significant with implementation of **MM 4.17-1 through MM 4.17-3**, similar to the Project.

Furthermore, Alternative 3 would similarly implement **Mitigation Measures MM 4.15-1 and MM 4.15-2**, requiring coordination with the County of Kern to pay necessary sales and use taxes, as well as make efforts to hire 50% of its workforce from the local communities. However, based on the above, impacts would be less than significant under this alternative following implementation of similar mitigation measures proposed for the project. Impacts related to public services would be similar compared to the Project.

Recreation

Similar to the Project, it is assumed the construction workforce would commute to the Project site each day from local communities under Alternative 3. As a result, Alternative 3 would similarly not induce an increase in resident population that would result in increased uses of existing neighborhood or regional parks or other recreational facilities. Alternative 3 would likewise also not include residences and would therefore not induce a substantial population increase. Impacts would be less than significant and similar to the Project.

With regard to the inclusion of the construction or expansion of recreational facilities, Alternative 3 would, like the Project, consist of a warehouse facility and accompanying structures and would not include recreational facilities or require the construction or expansion of facilities. No impact would occur, and impacts would be similar to the Project.

Based on the above, impacts would be less than significant. Given that both the Project and Alternative 3 do not include residences or recreational facilities, impacts related to recreation would be similar compared to the project and less than significant.

Transportation and Traffic

Similar to the Project, Alternative 3 would require similar trips for the construction of the warehouse and associated infrastructure; however, it is anticipated that local traffic would not be significantly impacted with the addition of construction traffic generated under this alternative. Compared to the Project, it is expected that vehicle trips during operation would be similar to the

Project, with potentially fewer VMT when considering the Alternative 3's proximity to regional transportation infrastructure. As a result, it is conservatively assumed that impacts would be similar to the Project and considered less than significant.

Similar to the Project, any LOS deficiencies would not result in significant environmental impacts under CEQA. All feasible mitigation would be required to maintain LOS at acceptable levels, and the Project proponent would be required to implement feasible intersection improvements. However, Alternative 3 would be required to implement conditions of feasible improvements that address deficiencies should there be any, such as **Mitigation Measure 4.17-2**, which would require the developer to pay the required Transportation Traffic Impact Fees that would be utilized for a fair share fee towards a long-term solution.

As it relates to increasing hazards due to a geometric design feature or incompatible use, Alternative 3 would maintain the same project characteristics. Similar to the project, Alternative 3 would be required to implement **Mitigation Measures MM 4.17-1 through MM 4.17-4**, which would include off-site road improvements for affected major intersections within the Mojave Specific Plan area. Alternative 3 would conform to Kern County standards for site access and street design, impacts associated with increased hazards due to a design feature would be less than significant, similar to the Project.

With regard to emergency access, it is unknown whether the Project would cause a significant increase in congestion or worsen the existing service levels at nearby intersection and roadway segments without a site-specific traffic analysis. However Alternative 3 would be required to comply with Policy 6.1.1 and 6.1.2 of the Mojave Specific Plan, which ensure a circulation system that supports the types and intensities of land uses in the Mojave Specific Plan, as well as a roadway network that is consistent with the County's circulation grid policy. As a result, it is conservatively assumed that impacts would be similar to the Project.

Impacts to hazards caused by geometric design features would be similar to the Project and less than significant.

Overall, Alternative 3 would maintain all characteristics of the Project. As such, it is reasonably assumed that Alternative 3 would have similar impacts to the Project and considered to be less than significant with mitigation incorporated.

Tribal Cultural Resources

To convert the Project site to industrial uses and construct a warehouse and associated infrastructure, this alternative would require surface level ground disturbance throughout the Project site. Under Alternative 3, ground disturbance within the Project site would be shallow and would be unlikely to result in potentially significant impacts to tribal cultural resources. This alternative would be required to implement similar mitigation measures as described in **Mitigation Measures 4.5-1 through MM 4.5-3** (Section 4.5, *Cultural Resources*) for the Project, as well as to adhere to all federal, State, and local regulations governing cultural resources, including California Penal Code, Section 622.5. Furthermore, Alternative 3 would be required to adhere to Policy 7.2.1 and 7.2.2 which would preserve and expand historical and community resources. As such, impacts

to tribal cultural resources under Alternative 3 are assumed to be similar to the Project and result in impacts that are less than significant.

Utilities and Service Systems

As with the Project, the construction and operation of a warehouse distribution facility and associated infrastructure would require water usage for dust suppression as well as minimal generation of wastewater, usage of electrical power, and telecommunications. It is unknown the extent to which Alternative 3 would alter stormwater drainage in the absence of a specific site and site plan. However, as with the project, Alternative 3 would be required to implement **Mitigation Measures MM 4.19-1** through **MM 4.19-3** in order to reduce all impacts associated with the development of new water, stormwater, wastewater, and electricity connections and utility line extensions during construction. Alternative 3, as with the Project, would also be required to report any groundwater usage associated with project operation and to equip all groundwater wells on-site with water meters as outlined in **MM 4.19-4**.

An increase in solid waste generation under Alternative 3 as compared to the Project is not anticipated. However, Alternative 3, would be required to implement **Mitigation Measure 4.19-5**, which would require the provisions of a recycling coordinator to ensure the separation and proper disposal of recyclable materials and solid waste during construction, similar to the Project.

With regard to operations, Alternative 3 would generate similar water, wastewater, stormwater, electricity, solid waste, and telecommunications demands as the Project. As such, implementation of **Mitigation Measures MM 4.19-1** through **MM 4.19-5** would be required to reduce impacts to said resources to a less than significant level, as with the Project.

While water demand would be similar to the Project, the Mojave Specific Plan is not within the boundaries of a groundwater basin that is considered over drafted as is the case with the Proposed Project within the valley region. A site-specific Water Supply Assessment would be required; however, it is conservatively assumed that cumulative water supply impacts would be similar to the Project, but a less than significant level with implementation of the above listed mitigation measures.

Alternative 3 would result in similar impacts to utilities and service systems compared to the Project, with regard to wastewater, stormwater, electricity, and solid waste utility providers in the area. Impacts to groundwater supply would be similar to the Project but be less than significant due to the Mojave Specific Plan not being within an over drafted groundwater basin. All other impacts would be similar to the Project, and less than significant with mitigation incorporated.

Wildfire

As with the project, this alternative is not classified as being within a high fire hazard severity zone and is not anticipated to physically impede the existing emergency response plans, emergency vehicle access, or personnel access to the site. Alternative 3 is anticipated to be located in a rural, sparsely developed area with limited population. Furthermore, the Project would be required to comply with Policy 9.4.1 through 9.4.4 of the Mojave Specific Plan, which ensure that new development does not degrade fire and law enforcements service levels. Although, the specific

Alternative Site is not known, Alternative 3 is not anticipated to be located along an identified emergency evacuation route or in any identified adopted emergency evacuation plan. As such, is it conservatively assumed that impacts regarding the impairment of an adopted emergency response plan or emergency evacuation plan would be similar to the Project, and less than significant.

Alternative 3 would be located in an area designated as Unzoned LRA, which are areas considered to have low fire frequency. The potential for wildfire on the Project site is not considered high. Similar to the project, Alternative 3 would be required to implement **Mitigation Measure MM 4.9-12** (Section 4.9, *Hazards and Hazardous Materials*), requiring the development and implementation of a fire safety plan for use during construction and operation, which would further reduce the fire risks on-site. As such, impacts under this alternative related to exposing project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire would be less than significant.

With regard to the installation or maintenance of associated infrastructure, Alternative 3 would likely be required to construct new internal roads from the existing road network to the Alternative 3 Project site that would act as access roads in the event of an emergency. As mentioned above, Alternative 3 would be required to implement a Fire Safety Plan per **MM 4.9-12** in order to ensure potential wildfire impacts, including flooding, landslides, or other drainage changes related to installation or maintenance of associated infrastructure are reduced. Additionally, as with the Project, Alternative 3 would be required to implement **MM 4.17-1** through **MM 4.17-4** (Section 4.17, *Transportation and Traffic*) so as to ensure compliance with applicable emergency evacuation plan regulations and emergency access is maintained at all times.

Overall, it is assumed that Alternative 3 would result in less than significant wildfire impacts, similar to the Project.

Comparison of Impacts

Alternative 3 would potentially result in less or similar impacts for a majority of the environmental issue areas, and notably reduce hydrology and water quality (groundwater supply only), and utilities and service systems (water supply only) to less than significant impacts. However, this alternative would not eliminate cumulative significant and unavoidable impacts associated with air quality, noise and GHG emissions.

Relationship to Project Objectives

Alternative 3 would achieve all of the Project objectives listed above in Section 6.2. This alternative would be a visually similar state-of-the-art warehouse and distribution facility situated near major regional transportation infrastructure. By adhering to Kern County Zoning Ordinance, Land Division Ordinance, and Development Standards, this alternative would implement a visually appealing industrial project. Additionally, Alternative 3 would meet regional demand for Class A industrial facilities, which would address local traffic patterns and needs, and promotes land use compatibility with adjacent airport related uses. This alternative would contribute to the local economy through new capital investment, the creation of new employment opportunities, expansion of the tax base, economic growth and development, and payment of development fees.

Overall, the location of this alternative is consistent with current and future market demands which minimizes conflicts with surrounding uses. As such, Alternative 3 would achieve all project goals listed above in Section 6.2.

6.8 Environmentally Superior Alternative

As presented in the comparative analysis above, and as shown in **Table 6-2, Comparison of Alternatives**, there are a number of factors in selecting the environmentally superior alternative. An EIR must identify the environmentally superior alternative to the project. Alternative 1, the No Project Alternative, would be environmentally superior to the Project on the basis of its minimization or avoidance of physical environmental impacts. However, CEQA Guidelines Section 15126.6(e)(2) states:

The “no project” analysis shall discuss the existing conditions at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the “no project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

Because the No Project Alternative cannot be the Environmentally Superior Alternative under CEQA, the Environmentally Superior Alternative is considered to be Alternative 3: Alternative Site. When compared to the Project, Alternative 3 would result in similar impacts across all environmental resources, excluding GHG emissions, as Alternative 3 would generate a lessened impact due to the Mojave air basin’s emissions attainment status and due to the widely undeveloped nature of East Kern lending itself to greater impacts on potential habitat for sensitive desert species. However, the significant and unavoidable impacts on a cumulative level for *Utilities and Service Systems* that would result from the Project would be reduced to less than significant levels under Alternative 3 since the Mojave Specific Plan is not within a groundwater basin that is subject to any adjudication or GSMA, nor considered over drafted.

It should be noted that the Project proponent lacks immediate control and access to such an alternative site location and although all project objectives could be met, as discussed above, such project objectives could not be met within the same time frame and/or with the same efficiency as the current proposal forecasts. The Project proponent would be required to identify and secure land use authority over such an alternative site location, whether by purchasing or leasing the land, and subsequently must apply for land use entitlements and conduct environmental review.

6.8.1 Comparative Impacts of Proposed Project to All Alternatives

Table 6-2 provides a summary of the comparative impacts of the Project to the alternatives analyzed in this EIR.

Table 6-2: Summary Comparison of Alternative Impacts

Issue Area	Project Summary of Impacts	Alternative 1 No Project	Alternative 2 Reduced Footprint Alternative	Alternative 3 Alternative Site
Aesthetics and Visual Resource	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Agricultural and Forest Resources	No Impact	Similar (NI)	Similar (NI)	Similar (NI)
Air Quality	Significant and unavoidable (cumulative)	Less (NI)	Less (SU)	Similar (SU)
Biological Resources	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Greater (SU)
Cultural Resources	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Energy	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Geology and Soils	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Greenhouse Gas Emissions	Significant and unavoidable (cumulative)	Less (NI)	Similar (SU)	Less (SU)
Hazards and Hazardous Materials	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Hydrology and Water Quality	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Land Use and Planning	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Mineral Resources	Less than significant	Less (NI)	Similar (LTS)	Similar (LTS)
Noise	Significant and unavoidable (cumulative)	Less (NI)	Less (SU)	Similar (SU)
Population and Housing	Less than	Less (NI)	Similar (NI)	Similar (LTS)

Issue Area	Project Summary of Impacts	Alternative 1 No Project	Alternative 2 Reduced Footprint Alternative	Alternative 3 Alternative Site
	significant			
Public Services	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Recreation	Less than significant	Less (NI)	Similar (LTS)	Similar (LTS)
Transportation and Traffic	Less than Significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Tribal Cultural Resources	Less than significant with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Utilities and Service Systems	Significant and unavoidable (cumulative – water supply)	Less (NI)	Similar (SU)	Similar (LTS)
Wildfire	Less than significant with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Meet Project Objectives?	All	None	Most	All
Reduce Significant and Unavoidable Impacts	N/A	All	Partially	Some

NI = no impact

LTS = less than significant

SU = significant and unavoidable

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Chapter 7

Response to Comments

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Chapter 7

Response to Comments

This chapter is reserved for, and will be included in, the Final EIR.

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Chapter 8

Organizations and Persons Consulted

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Chapter 8

Organizations and Persons Consulted

8.1 Federal

Federal Aviation Administration
U.S. Bureau of Land Management
U.S. Department of Agriculture
U.S. Army Corps of Engineers
U.S. Environmental Protection Agency Region IX
U.S. Fish and Wildlife Service

8.2 State of California

California Air Resources Board
California Department of Conservation
California Department of Fish and Wildlife
California Department of Geologic Energy Management Division
California Department of Transportation
California Department of Water Resources
California Energy Commission
California Environmental Protection Agency
California Natural Resources Agency
California Public Utilities Commission
California Regional Water Quality Control Board, Central Valley Region
California State Senate
California State University Bakersfield Library
California Workforce Development Board
Governor's Office of Business and Economic Development
Native American Heritage Council
Public Policy Institute of California
State Air Resources Board Stationary Resource Division

8.3 Regional and Local

Bakersfield City Planning Department
Bakersfield City Public Works Department
Bakersfield Municipal Airport
Beardsley School District
California City Planning Department
California State University Bakersfield
Center for Biological Diversity
Center on Race, Poverty and the Environment
City of Arvin
City of Bakersfield
City of Maricopa
City of McFarland
City of Ridgecrest
City of Shafter
City of Taft
City of Tehachapi
City of Wasco
Defenders of Wildlife
Delano City Planning Department
Golden Empire Transit
Inyo County Planning Department
Kern Audubon Society
Kern Mosquito Abatement District
Kern Council of Governments
Kern County Agriculture Department
Kern County Airports Department
Kern County Administrative Officer
Kern County Environmental Health Services Department
Kern County Fire Department
Kern County Library
Kern County Public Works Department
Kern County Sheriff's Department
Kern County Superintendent of Schools

Kern County Water Agency
Kings County Planning Agency
Kern Valley Indian Council
Los Angeles Co Regional Planning Department
Los Angeles Audubon
Native American Heritage Council
Nature Conservancy
North Edwards Water District
North of River Municipal Waste District
North of the River Recreation and Park District
Pacific Gas and Electric Company
San Bernardino Co Planning Department
Santa Barbara County Resource Management Department
San Joaquin Valley Air Pollution Control District
San Joaquin Valley Center on Race, Poverty and the Environment
San Luis Obispo Co Planning Department
Santa Barbara Co Resource Management Department
Sierra Club, Kern Kaweah Chapter
Southern California Gas Company
South San Joaquin Valley Arch Info Center
Southern California Gas Company
Tejon Indian Tribe
Torres Martinez Desert Cahuilla Indians
Tulare County Planning and Development Department
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Ventura County RMA Planning Division
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Chapter 9

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Chapter 10

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Section 11

Acronyms and Abbreviations

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Chapter 11

Acronyms and Abbreviations

§	Section
°C	degrees Celsius
°F	Fahrenheit
µg/m ³	microgram per cubic meter
AB 32	Assembly Bill 32
AB 52	Assembly Bill 52
ACBM	asbestos-containing building material
ACHP	Advisory Council on Historic Preservation
AEC	Advanced Environmental Concepts Inc.
AERMOD	American Meteorological Society/EPA regulatory dispersion model
AFY	acre-feet per year
ASHERA	Asbestos Hazard Emergency Response Act
AIA	Airport Influence Area
ALUCP	Airport Land Use Compatibility Plan
APN	Assessor Parcel Number
AQAP	Air Quality Attainment Plan
AQMP	Air Quality Management Plan
ASCE	American Society of Civil Engineers
ATC	Authority to Construct
ATCM	Airborne Toxic Control Measure
BAAQMD	Bay Area Air Quality Management District
BACT	Best Available Control Technology
Basin	Tulare Lake Hydrologic Region, or Tulare Lake Basin

BAU	business as usual
BLM	Bureau of Land Management
BMP	best management practice
BPS	Best Performance Standards
BTU	British thermal units
C&D	construction and demolition
CA MUTCD	California Manual on Uniform Traffic Control Devices
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAL FIRE	California Department of Forestry and Fire Protection
Cal NAGPRA	California Native American Graves Protection and Repatriation Act
CalARP	California Accidental Release Prevention Program
CalEEMod	California Emissions Estimator Model
CalEPA	California Environmental Protection Agency
CalGEM	California Geologic Energy Management Division
CALGreen	California Green Building Standards Code
CalOES	California Office of Emergency Services
CalRecycle	California Department of Resources Recycling and Recovery
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDC	Centers for Disease Control
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission

CEQA	California Environmental Quality Act
CERCLA Act	Comprehensive Environmental Response, Compensation, and Liability
CESA	California Endangered Species Act
Cf	cubic feet
CFC	chlorofluorocarbons
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CH ₄	methane
CHL	California Historical Landmark
CHP	California Highway Patrol
CISN	California Integrated Seismic Network
CIWMB	California Integrated Waste Management Board
CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
COG	Council of Governments
Cortese list	State of California Hazardous Waste and Substances Sites List
County	Kern County
COVID-19	Coronavirus Disease 2019
CPUC	California Public Utilities Commission
CREC	Controlled Recognized Environmental Condition
CRHR	California Register of Historical Resources

CRM	CRM Tech
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
CWA	Clean Water Act
CWPP	Kern County Community Wildfire Protection Plan
dB	decibel
dBA	A-weighted decibel
DLRP	Division of Land Resource Protection
DMA	Development Mitigation Agreement
DOC	Department of Conservation
DOF	California Department of Finance
DPM	diesel particulate matter
Draft EIR	Draft Environmental Impact Report
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EISA	Energy Independence and Security Act
EKAPCD	Eastern Kern Air Pollution Control District
EMFAC2021	EMissions FAcTtor model
EMS	Emergency Medical Services Division
EMT	emergency medical technician
EO	Executive Order
EOP	Emergency Operations Plan
EPA	U.S. Environmental Protection Agency
EPCA	Energy Policy and Conservation Act
ESA	Environmental Site Assessment
EV	electric vehicle

EVCS	electric vehicle capable space
FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHSZ	Fire Hazards Severity Zone
FHWA	Federal Highway Administration
FICON	Federal Interagency Committee on Noise
Fire Code	Kern County Code of Building Regulations
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
GAMAQI	2015 Guidance for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
GSA	Groundwater Sustainability Agency
GSMA	Groundwater Management Sustainability Act
GSP	Groundwater Sustainability Plan
GVW	R gross vehicle weight rating
GWh	gigawatt-hour
GWP	global warming potential
H	Airport Approach Height
H ₂ S	hydrogen sulfide
HAP	hazardous air pollutant
Hazardous Waste Plan Plan	Kern County and Incorporated Cities Hazardous Waste Management
HCD	California Department of Housing and Community Development
HCM 6	Highway Capacity Manual, Sixth Edition
HCP	habitat conservation plan

HFC	hydrofluorocarbon
HMTA	Hazardous Materials Transportation Act
hp-hr/gal	horsepower hour per gallon
HRA	Health Risk Assessment
HREC	Historical Recognized Environmental Condition
HSC	Health and Safety Code
HSWA	Hazardous and Solid Waste Amendment
HUD	U.S. Department of Housing and Urban Development
ID No. 4	Improvement District Number 4
IES	Illuminating Engineering Society
IGY	International Geophysical Year
in/sec	inches per second
IPCC	International Panel on Climate Change
IRA	Inflation Reduction Act
IRWM	Integrated Regional Water Management
IS	Initial Study
ISO	International Organization for Standardization
ISR	Indirect Source Rule
ITE	Institute of Transportation Engineers
ITP	incidental take permit
kBTU	kilo-British thermal unit
KCFD	Kern County Fire Department
KCGP	Kern County General Plan
KCPNR	Kern County Planning and Natural Resources Department
KCSO	Kern County Sheriff's Office
KCWA	Kern County Water Agency

KCZO	Kern County Zoning Ordinance
KEDC	Kern Economic Development Corporation
Kern COG	Kern Council of Governments
KGA	Kern Groundwater Authority
KOP	Key Observation Point
kWh	kilowatt-hour
LACFD	Los Angeles County Fire Department
LCFS	Low Carbon Fuel Standard
LDA	Light-Duty-Auto
Ldn	average day-night noise level
LDT	Light-Duty-Truck
Leq	equivalent noise level
LGC	LGC Geotechnical, Inc.
LI	Light Industrial
LOS	level of service
LRA	local responsibility order
LTS	less than significant
Lw	sound power level
M-1	District Light Industrial District
MBGP	Metropolitan Bakersfield General Plan
MBHCP	Metropolitan Bakersfield Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
MCY	motorcycle
MDV	medium-duty-vehicles
MGD	million gallons per day
MM	mitigation measures

MMT	million metric tons
MPO	metropolitan planning organization
MRZ	Mineral Resource Zone
MT	metric tons
MW	megawatt
MWh	megawatt-hour
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NEHRP	National Earthquake Hazards Reduction Program
NESHAP	National Emission Standards for Hazardous Air Pollutants
NF3	nitrogen trifluoride
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NI	no impact
NMFS	National Marine Fisheries Service
NO	nitric oxide
NO2	nitrogen dioxide
NO3	nitrates
NOI	Notice of Intent
NOP	Notice of Preparation
NOR	North of the River
NORMDWD	North of the River Municipal Water District
NORSDD	North of the River Sanitary District

Nox	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NR	natural resources
NRHP	National Register of Historic Places
O3	ozone
OEHHA	California Office of Environmental Health Hazard Assessment
OMWC	Oildale Mutal Water Company
PD	Precise Development
PE	Petroleum Extraction
PFC	perfluorocarbon
PG&E	Pacific Gas and Electric
PL	Public Law
PM	particulate matter
PM10	particulate matter of 10 microns or less
PM2.5	particulate matter of 2.5 microns or less
Porter-Cologne	Porter-Cologne Water Quality Control Act
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
Project	proposed IPG Industrial Project
PTO	Permit to Operate
PVC	polyvinyl chloride
RCRA	Resource Conservation and Recovery Act of 1976
REC	Recognized Environmental Condition
RHNA	Regional Housing Need Allocation
R-MP	Resource–Mineral and Petroleum

RMP	Risk Management Program
RMP	Risk Management Program
ROG	reactive organic gas
ROG	reactive organic gases
RPS	Renewables Portfolio Standard
RTIP	Regional Transportation Improvement Program
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCS	sustainable communities strategy
SDC	Seismic Design Category
SF6	sulfur hexafluoride
SGMA	Sustainable Groundwater Management Act
SHRC	State Historical Resources Commission
SIP	State Implementation Plan
SJVAB	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SLCP	short-lived climate pollutant
SLF	Sacred Lands File
SMARA	The Surface Mining and Reclamation Act of 1975
SO2	sulfur dioxide
SOI	Sphere of Influence
SR	State Route
SRA	State responsibility areas

SRRE	Source Reduction and Recycling Element
SSC	Species of special concern
SSJVIC	Southern San Joaquin Valley Information Center
SSSC	side-street stop-controlled
SU	significant and unavoidable
Subbasin	Kern County Subbasin
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	California State Water Resources Control Board
TAC	toxic air contaminant
TCR	Tribal cultural resource
TOD	transit-oriented development
TRU	Transport Refrigeration Unit
TS	traffic-signal controlled
U.S.C.	United States Code
UCMP	University of California Museum of Paleontology
UFC	Uniform Fire Code
URF	Unit Risk Factor
USACE U.S.	Army Corps of Engineers
USDOT U.S.	Department of Transportation
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UWMP	Urban Water Management Plan
VERA	Voluntary Emissions Reduction Agreement
VMT	vehicle miles traveled
VOC	volatile organic compound

Vph	vehicles per hour
Warren-Alquist Act	Warren-Alquist Energy Resources Conservation and Development Act
WDR	Waste discharge requirements
WOTUS	Waters of the United States
WSA	Water Supply Assessment
WWTP	Wastewater Treatment Plant
ZEV	zero-emission vehicles
ZV	Zoning Variance