

Draft Environmental Impact Report

SCH# 2023100467

Volume 1

Chapters 1 through 10

WESTSIDE INDUSTRIAL PROJECT

by Seefried Industrial Properties

(PP24402)

General Plan Amendment No. 21, Map No. 142
Zone Classification Change No. 69, Map No. 142
Conditional Use Permit No. 75, Map No. 142
Conditional Use Permit No. 78, Map No. 142
Precise Development Plan No. 3, Map No. 142
Zone Variance No. 67, Map No. 142
Agricultural Preserve No. 10 - Exclusion
Tentative Parcel Map No. 12537



Kern County
Planning and Natural Resources Department
Bakersfield, CA

February 2024

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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 WESTSIDE 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: Westside Industrial Project by Seefried Industrial Properties (PP24402); GPA 21, Map 142; ZCC 69, Map 142; PD 3, Map 142; CUP 75, Map 142; CUP 78, Map 142; ZV 67, Map 142; VTPM 12537; Ag Pres 10 Excl, Map 142

PROJECT LOCATION: The project site is located approximately 1.3 miles south of the City of Bakersfield, at the southeast corner of the Houghton Road and Wible Road intersection and approximately 1 mile west of State Route (SR) 99 in unincorporated Kern County.

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/planning/environmental-documents/westside-industrial-project>

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

February 20, 2024 – April 5, 2024

WRITTEN COMMENTS may be submitted to the project planner identified below prior to the close of the DEIR public review period on **April 5, 2024, at 5:00 p.m.** to:

**Kern County Planning and Natural Resources Department
ATTN: Mark Tolentino, Planner II
2700 "M" Street, Suite 100, Bakersfield, CA 93301
Phone: (661) 862-5015
E-mail: TolentinoM@kerncounty.com**

PUBLIC HEARING: A public hearing has been scheduled with the Kern County Planning Commission 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: May 9, 2024
TIME: 7:00 P.M. or soon thereafter
LOCATION: Chambers of the Board of Supervisors
Kern County Administrative Center, First Floor
1115 Truxtun Avenue, Bakersfield, CA 93301

After consideration by the Planning Commission, a public hearing will be scheduled for the Kern County Board of Supervisors for final consideration and action. 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: A proposed 653,442-square-foot single-story warehouse and distribution facility and related improvements on a proposed 93.74-acre project site. The facility would receive and consolidate products from vendors and then ship these products to other fulfillment centers within the network.

The proposed facility has a footprint of approximately 629,186 square feet (including approximately 44,424 square feet of office space) that would primarily facilitate material handling equipment and warehouse uses. The remaining square footage is made up of a 24,256-square-foot mezzanine, which contains only material handling equipment conveyors with occasional maintenance and no storage. The proposed project would also include an on-site wastewater treatment plant, temporary concrete batch plant during construction, on-site substation, two guardhouses and one pumphouse, and all associated on-site improvements such as lighting, parking and landscaping. The proposed project would also include approximately 5.54 acres of off-site improvements, along Houghton Road and Wible Road. Implementation of the proposed project includes the following requests:

- Amendment to the Land Use Element of the Metropolitan Bakersfield General Plan from Map Code R-IA (Intensive Agriculture – minimum 20-acre parcel size) to LI (Light Industrial) for approximately 93.74 acres (GPA No. 21, Map 142).
- Change in Zone Classification from A (Exclusive Agriculture) to M-1 PD (Light Industrial Precise Development Combining), or a more restrictive district, on approximately 93.74 acres (ZCC No. 69, Map 142).
- Approval of Precise Development Plan No. 3, Map 142 for site development and implementation of the M-1 PD zoning request.
- Conditional Use Permit to allow for the construction and operation of a permanent on-site wastewater treatment facility (Section 19.36.030 H) in the M-1 (Light Industrial) District (CUP No. 75, Map 142).
- Conditional Use Permit to allow for the construction and operation of a temporary concrete batch plant (Section 19.36.030 C.1) in the M-1 (Light Industrial) District (CUP No. 78, Map 142).
- Zone Variance to authorize a 9.63-acre (gross) parcel where 20 acres (gross) is required (Section 19.12.050) in the A (Exclusive Agriculture) District (ZV No. 67, Map 142).
- Tentative Parcel Map No. 12537 proposing the division of a 642.68-acre parcel into a 9.63-acre (gross) parcel, a 97.70-acre (gross) parcel and a 535.35-acre (gross) Designated Remainder which may be processed concurrently with, or subsequent to, other project entitlements.

- An Agricultural Exclusion of 93.74 acres within the boundaries of Agricultural Preserve No. 10, Zone Map No. 142.

ENVIRONMENTAL REVIEW FINDINGS: Anticipated significant and unavoidable impacts on Aesthetics, Agricultural Resources, Air Quality, Greenhouse Gases, Water Supply (Hydrology), Transportation and Traffic, 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

MFT (02/20/24)

cc: County Clerk (2) (with fee)
Environmental Status Board
LiUNA
Supervisorial District No. 4

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Agencies & Interested Parties

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estside Industrial Project.docx

Kern River Groundwater Sustainability
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Oakland, CA 94612

City of Arvin
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Bakersfield, CA 93301

Bakersfield City Public Works Dept
1501 Truxtun Avenue
Bakersfield, CA 93301

California City Planning Dept
21000 Hacienda Blvd.
California City, CA 93215

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

City of Maricopa
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Maricopa, CA 93252

City of McFarland
401 West Kern Avenue
McFarland, CA 93250

City of Ridgecrest
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Ridgecrest, CA 93555

City of Shafter
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Shafter, CA 93263

City of Taft
Planning & Building
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Taft, CA 93268

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Tehachapi, CA 93561-1722

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Hanford, CA 93230

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Los Angeles, CA 90012

San Bernardino Co Planning Dept
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San Bernardino, CA 92415-0182

San Luis Obispo Co Planning Dept
Planning and Building
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San Luis Obispo, CA 93408

Santa Barbara Co Resource Mgt Dept
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Santa Barbara, CA 93101

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5961 South Mooney Boulevard
Visalia, CA 93291

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Ventura, CA 93009-1740

U.S. Bureau of Land Management
Caliente/Bakersfield
35126 McMurtrey Avenue
Bakersfield, CA 93308

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

Environmental Protection Agency
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75 Hawthorn Street
San Francisco, CA 94105

U.S. Dept of Agriculture/NRCS
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Control Board/Central Valley Region
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Sacramento, CA 95825-8202

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Kern County
Agriculture Department

Kern County Airports Department

County Clerk

Kern County Administrative Officer

Kern County Public Works Department/
Building & Development/Floodplain

Kern County Public Works Department/
Building & Development/Survey

Kern County
Env Health Services Department

Kern County Fire Dept (Put in FIRE BOX)
Regina Arriaga
Roxanne Routh
Jim Killam

Kern County Fire Dept
Cary Wright, Fire Marshall

Kern County Library/Beale
Local History Room

Kern County Library/Beale
Andie Sullivan

Kern County Parks & Recreation

Kern County Sheriff's Dept
Administration

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

Kern County Public Works
Department/Operations &
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Kern County Public Works Department/
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185 381 32 00 9
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13252 THOROUGHbred ST
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185 382 32 00 6
BULLARD RICKY A
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BAKERSFIELD CA 93313-9548

184 392 29 00 4
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185 381 18 00 9
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184 391 10 00 1
CERRO JULIA ANN FAMILY TRUST
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185 510 02 02 0
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185 510 01 01 8
CRUZ FAMILY TRUST
2055 MC KEE RD
BAKERSFIELD CA 93313

185 381 33 00 2
DE ALBA FAMILY TRUST
1518 KUHIO ST
BAKERSFIELD CA 93313

185 510 06 02 2
CROSS FAMILY TRUST
14711 MC CAFFREY ST
BAKERSFIELD CA 93313

185 381 36 00 1
DEVIN FAMILY TRUST
13210 THOROUGHbred ST
BAKERSFIELD CA 93313

185 381 37 00 4
DEVIN FAMILY TRUST
13252 THOROUGHbred ST
BAKERSFIELD CA 93313

185 382 23 00 0
DE LA GARZA JESUS ET AL
13900 S H ST
BAKERSFIELD CA 93313-9553

184 392 08 00 3
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184 392 70 00 2
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BAKERSFIELD CA 93313-9642

185 381 12 00 1
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185 381 27 00 5
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185 381 24 00 6
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184 392 10 00 8
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185 382 26 00 9
LONG REVOCABLE TRUST
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184 150 05 00 0
KERN DELTA WATER DIST
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185 382 45 00 4
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184 150 53 00 9
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185 381 39 00 0
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185 510 05 00 1
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185 381 45 00 7
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1444 PORTY AV
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185 382 17 00 3
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184 230 08 00 2
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Notice of Completion & Environmental Document Transmittal

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

SCH # 2023100467

Project Title: Westside Industrial Project by Seefried Industrial Properties

Lead Agency: Kern County Planning and Natural Resources Department

Contact Person: Mark Tolentino

Mailing Address: 2700 "M" Street Suite 100

Phone: (661) 862-5041

City: Bakersfield

Zip: 93301

County: Kern

Project Location: County: Kern

City/Nearest Community: City of Bakersfield

Cross Streets: Houghton Road & Wible Road

Zip Code: 93313

Lat. / Long.: 35° 14.19042' N, 119° 2.27736' W

Total Acres: 93.74

Assessor's Parcel No.: 184-391-08

Section: 13

Twp.: 31 S

Range: 27 E

Base: MDB&M

Within 2 Miles: State Hwy #: 99

Waterways: N/A

Airports: N/A

Railways: N/A

Schools: Gen. Shafter Elementary

Document Type:

CEQA: NOP
 Early Cons
 Neg Dec
 Mit Neg Dec

Draft EIR
 Supplement/Subsequent EIR
(Prior SCH No.) _____
Other _____

NEPA: NOI
 EA
 Draft EIS
 FONSI

Other: Joint Document
 Final Document
 Other _____

Local Action Type:

General Plan Update
 General Plan Amendment
 General Plan Element
 Community Plan

Specific Plan
 Master Plan
 Planned Unit Development
 Site Plan

Rezone
 Prezone
 Use Permit
 Land Division (Subdivision, etc.)

Annexation
 Redevelopment
 Coastal Permit
 Other: PD Plan, Ag Preserve Excl.

Development Type:

Residential: Units _____ Acres _____
 Office: Sq.ft. _____ Acres _____ Employees _____
 Commercial: Sq.ft. _____ Acres _____ Employees _____
 Industrial: Sq.ft. 653,442 Acres 93.74 Employees 1,830
 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
 Agricultural Land
 Air Quality
 Archeological/Historical
 Biological Resources
 Coastal Zone
 Drainage/Absorption
 Economic/Jobs
 Other GHG, Wildfire, Tribal Cultural Resources, Energy

Fiscal
 Flood Plain/Flooding
 Forest Land/Fire Hazard
 Geologic/Seismic
 Minerals
 Noise
 Population/Housing Balance
 Public Services/Facilities

Recreation/Parks
 Schools/Universities
 Septic Systems
 Sewer Capacity
 Soil Erosion/Compaction/Grading
 Solid Waste
 Toxic/Hazardous
 Traffic/Circulation

Vegetation
 Water Quality
 Water Supply/Groundwater
 Wetland/Riparian
 Wildlife
 Growth Inducing
 Land Use
 Cumulative Effects

Present Land Use/Zoning/General Plan Designation:

Agricultural Land/Zoning: A (Exclusive Agriculture)/General Plan: R-IA (Intensive Agriculture)

Project Description: The Westside Industrial Project is a proposal by Seefried Industrial Properties for the construction and operation of a warehouse and distribution facility. The proposed project would include the construction of an approximately 653,442-square-foot single-story warehouse and related site improvements, including but not limited to, perimeter security fencing and nighttime directional lighting at the on-site warehouse and distribution facility, new pavement, curb and gutter, and sidewalk on frontage roads with associated signing and markings, office, break and ancillary space. The proposed project located on an approximately 93.74-acre portion of an approximately 630 total-acre parcel, and is bounded by Wible Road (west), Houghton Road (north), and agricultural land (south and east). The project site is approximately 1.3 miles south of the City of Bakersfield, in unincorporated Kern County. Regionally, the project site is located within the Kern County, Metropolitan Bakersfield General Plan (unincorporated Planning Area) within the City of Bakersfield Sphere of Influence (SOI).

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".

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

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

Starting Date February 20, 2024 Ending Date April 5, 2024

Lead Agency (Complete if applicable):

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

Signature of Lead Agency Representative: _____ /s/ _____ **Date:** 02/20/2024

Mark Tolentino, Planner II

Draft Environmental Impact Report

SCH# 2023100467

Volume 1

Chapters 1 through 10

WESTSIDE INDUSTRIAL PROJECT

by Seefried Industrial Properties

(PP24402)

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Zone Classification Change No. 69, Map No. 142
Conditional Use Permit No. 75, Map No. 142
Conditional Use Permit No. 78, Map No. 142
Precise Development Plan No. 3, Map No. 142
Zone Variance No. 67, Map No. 142
Agricultural Preserve No. 10 - Exclusion
Tentative Parcel Map No. 12537



Kern County
Planning and Natural Resources Department
Bakersfield, CA

February 2024

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Chapter 1

Executive Summary

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1.1 Introduction

This Draft Environmental Impact Report (Draft EIR) has been prepared by Kern County (County), the Lead Agency, under the California Environmental Quality Act (CEQA). The Draft EIR provides information about the environmental setting and identifies and evaluates potential environmental impacts associated with construction and operation of Seefried Industrial Properties' (project proponent) proposed warehouse and distribution facility (proposed project). The proposed project would include the construction of an approximately 653,442-square-foot single-story warehouse and related improvements. The project, as proposed by the project proponent, would be located on approximately 93.74 acres of privately owned land located at the southern end of the San Joaquin Valley in unincorporated Kern County, California as shown in **Figure 3-1, Regional Location Map**. The project site is bounded by Wible Road (west), Houghton Road (north), and agricultural land (south and east) as shown in **Figure 3-2, Local Vicinity Map**. The Assessor's Parcel Number (APN) for the project site is 184-391-08.

The proposed project includes a request to amend the Kern County Metropolitan Bakersfield General Plan, which would change the existing map code designation for the project site from Intensive Agriculture (R-IA—minimum 20-acre parcel size) to Light Industrial (LI) General Plan Amendment (GPA) (GPA 21, Map No. 142) and a Zone Classification Change (ZCC) from Exclusive Agriculture (A) to Light Industrial (M-1) Precise Development (PD) Combining District (M-1 PD) (ZCC No. 69, Map No. 142). Pursuant to County Zoning Ordinance Section 19.36.020.E.2, the primary warehouse and distribution operation for the proposed project is permitted on a “by-right” basis, however due to the inclusion of the PD overlay, Section 19.56.130 requires a precise development plan for the overall proposed project. In addition, Section 19.36.030 requires the proposed project secure approvals for Conditional Use Permits (CUPs) to allow for the construction and operation of a temporary concrete batch plant to supply concrete during construction pursuant to Section 19.36.030 C. 1 and a permanent on-site wastewater treatment facility, pursuant to Section 19.36.030 H. The proposed project also incorporates subdivision of the project parcel from the parent parcel (APN: 184-391-08), which includes a Zone Variance to authorize a 9.63-acre (gross) parcel where 20 acres (gross) is required (Section 19.12.050) in the A (Exclusive Agriculture) District; and Tentative Parcel Map No. 12537 proposing the division of a 642.68-acre parcel into a 9.63-acre (gross) parcel, a 97.70-acre (gross) parcel and a 535.35-acre (gross) Designated Remainder and Exclusion from Agricultural Preserve No. 10.

This Draft EIR has been prepared by Kern County as the Lead Agency under CEQA. The Draft EIR provides information about the environmental setting and impacts of the project and alternatives. 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 EIR will be used by Kern County to determine whether to approve the requested GPA (GPA 21, Map 142), Zone Change (Case No. 69, Map No. 142) CUPs (CUP 75 and 78, Map 142), Precise Development Plan (PD Plan No. 3, Map No. 142), Zone Variance (ZV 67, Map 142), Tentative Parcel Map (TPM No. 12537) and Exclusion from Agricultural Preserve No. 10 are required for the proposed project.

This Executive Summary summarizes the requirements of the *CEQA Guidelines*; provides an overview of the project and alternatives; identifies the purpose of this Draft EIR; outlines the potential impacts of the proposed project and the recommended mitigation measures; and discloses areas of controversy and issues to be resolved.

1.2 Project Summary

The proposed project would include the development of a 653,442-square-foot single-story warehouse distribution facility and associated improvements on approximately 93.74 acres of privately owned land in the central portion of unincorporated Kern County.

Implementation of the project as proposed include the following requests:

- General Plan Amendment No. 21, Map No. 142 to amend the land use designation in the Kern County Metropolitan Bakersfield General Plan from Intensive Agriculture (R-IA – minimum 20-acre parcel size) to Light Industrial (LI) on the project site.
- Zone Change Case No. 69, Map No. 142 from Exclusive Agriculture (A) to Light Industrial (M-1) Precise Development (PD) Combining District (M-1 PD) on approximately 93.74 acres.
- Precise Development Plan No. 3, Map No. 142 for site development and implementation of the M-1 PD zoning request.
- Conditional Use Permit No. 75, Map No. 142 to allow for the construction and operation of a permanent on-site wastewater treatment facility, pursuant to Chapter 19.36.030 H of the Kern County Zoning Ordinance.
- Conditional Use Permit No. 78, Map No. 142 to allow for the construction and operation of a temporary concrete batch plant pursuant to Chapter 19.36.030 C.1 of the Kern County Zoning Ordinance.
- Zone Variance No. 67, Map No. 142 *to authorize a 9.63-acre (gross) parcel where 20 acres (gross) is required (Section 19.12.050) in the A (Exclusive Agriculture) District*
- Tentative Parcel Map No. 12537 which may be processed concurrently with other project entitlements proposing the division of a 642.68-acre parcel into a 9.63-acre (gross) parcel, a 97.70-acre (gross) parcel and a 535.35-acre (gross) Designated Remainder
- Exclusion of approximately 93.74 acres from Agricultural Preserve No 10. (Zone Map No. 142).

1.2.1 Discretionary Entitlements Required

Kern County, as Lead Agency for the proposed project, has primary discretionary authority over the proposed project. Consideration and certification of a Final EIR by the Kern County Board of Supervisors with appropriate findings (see CEQA Guidelines §§ 15091 and 15093), the Mitigation Monitoring and Reporting Program (MMRP), and a Statement of Overriding Considerations. As noted above, construction and operation of the proposed project would require certain discretionary actions and approvals from the County consisting of the following:

1.2.2 County of Kern

- 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.
- Amendment to the Land Use Element of the Metropolitan Bakersfield General Plan from Map Code R-IA (Intensive Agriculture – minimum 20-acre parcel size) to LI (Light Industrial) for approximately 93.74 acres (GPA No. 21, Map 142).
- Change in Zone Classification from A (Exclusive Agriculture) to M-1 PD (Light Industrial Precise Development Combining), or a more restrictive district, on approximately 93.74 acres (ZCC No. 69, Map 142).
- Approval of a Precise Development Plan to allow an approximate 629,189 square foot warehouse and logistics facility (Section 19.36.020.E2 & Section 19.36.020.E3) and associated site improvements in the M-1 PD zoning request (PD No. 3, Map 142).
- Conditional Use Permit to allow for the construction and operation of a permanent on-site wastewater treatment facility (Section 19.36.030 K) in the M-1 (Light Industrial) District (CUP No. 75, Map 142).
- Conditional Use Permit to allow for the construction and operation of a temporary concrete batch plant (Section 19.36.030 C.1) in the M-1 (Light Industrial) District (CUP No. 78, Map 142).
- Zone Variance to authorize a 9.63-acre (gross) parcel where 20 acres (gross) is required (Section 19.12.050) in the A (Exclusive Agriculture) District (ZV No. 67, Map 142).
- Tentative Parcel Map No. 12537 proposing the division of a 642.68-acre parcel into a 9.63-acre (gross) parcel, a 97.70-acre (gross) parcel and a 535.35-acre (gross) Designated Remainder which may be processed concurrently with, or subsequent to, other project entitlements.
- An Agricultural Exclusion of 93.74 acres within the boundaries of Agricultural Preserve No. 10
- Zone Map No. 142. Approval of Grading Permits.
- Approval of Building Permits.
- Approval of Water Supply Assessment.

1.2.3 Other Responsible Agency Entitlements

In addition to the above discretionary approvals from the County, it may be necessary to obtain other discretionary entitlements, approvals or permits from other public agencies with jurisdiction over aspect(s) of the proposed 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, including:

- Central Valley Regional Water Quality Control Board (Central Valley RWQCB)
 - National Pollutant Discharge Elimination System (NPDES) Construction General Permit
 - General Construction Stormwater Permit (Preparation of a Storm Water Pollution Prevention Plan [SWPPP])

- California Department of Transportation (Caltrans)
 - Right-of-Way Encroachment Permit, and
 - Oversized Loads Permit
- San Joaquin Valley Air Pollution Control District (Valley Air District)
 - Authority to Construct
 - Construction Fugitive Dust Control Plan
 - Permit to Operate
 - Indirect Source Rule and Voluntary Emission Reduction Agreement
- Other applicable permits or approvals from responsible agencies may be required for the proposed project.

1.3 Purpose and Use of the Draft EIR

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

- The significant potential impacts on the environment and indicate the manner in which those significant impacts can be avoided or mitigated;
- Any unavoidable adverse impacts that cannot be mitigated; and
- 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 the 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 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 the 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 persons for comment during a 45-day formal review period in accordance with *CEQA Guidelines* Section 15087. The EIR process, including means by which members of the public can comment on the Draft EIR, is discussed further in Chapter 2, *Introduction*.

It is the intent of the Lead Agency that this Draft EIR, once certified, may be used as the basis for approving subsequent activities pursuant to any applicable CEQA streamlining or exemption process, including State CEQA Guidelines Section 15164.

1.4 Project Overview

This section of the Draft EIR describes the local and regional setting, surrounding land uses, objectives, and characteristics of the proposed project. The proposed project is described in further detail in Chapter 3, Project Description, of this Draft EIR.

1.4.1 Regional Setting

The project site is situated in the southern end of the San Joaquin Valley, in unincorporated Kern County and within the Sphere of Influence (SOI) of the City of Bakersfield. Kern County and City of Bakersfield have jointly adopted a general plan for the metropolitan area (Metropolitan Bakersfield General Plan 2002). 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. Bakersfield is the largest city in Kern County and has a current estimated population of 408,865 residents (California Department of Finance [CDF] 2022). The County's current estimated population is 909,813 residents (CDF 2022). The project site ranges in elevation from roughly 300 feet above mean sea level (AMSL), with elevation sloping gradually upward from north to south. While this area may be generally characterized as "open flats," outside of leveled fields and orchards, it is better described as an uneven plain consisting of extensive alluvial fans, debris flows 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, but also includes cheatgrass and doveweed.

1.4.1 Surrounding Land Uses and Project Site Conditions

Land uses within the region and the immediate area of the site primarily consist of agriculture with a mix of row crops and grazing land. Land uses surrounding the site include the following:

North—Houghton Road and Martin Feed Inc, an agricultural processing facility, is located north of the project site on the opposite side of Houghton Road. The facility contains several large agricultural structures and is surrounded by a fence.

South—An agricultural property used for row crops is located immediately south of the project site.

West—Wible Road and Martin Feed Inc, an agricultural processing facility, are located immediately west of the project site. The facility includes a canopy that covers processing equipment. An agricultural property used for orchards is located on the west side of Wible Road.

East—An agricultural property used for row crops is located immediately east of the project site.

The immediate project area has few nearby residences. The nearest residence is approximately 400 feet west of the southwest corner of the site. **Table 1-1:** *Project Site and Surrounding Land Uses* presents

the existing land uses, Metropolitan Bakersfield General Plan designations, and Zoning classification for the project site and surrounding area. In addition, Kern High School District has identified a new school site located approximately 0.5 mile north of the project site at Wible Road and Engle Road and approved a new high school to be constructed at the intersection of Panama Lane and Cottonwood Road, approximately 3 miles northeast of the project site.

TABLE 1-1: PROJECT SITE AND SURROUNDING LAND USES

	Existing Land Use	Existing Map Code Designation	Existing Zone Classification
Project Site	Agriculture	Intensive Agriculture (R-IA)	Exclusive Agriculture (A)
North of Project Site	Agriculture, Agriculture Processing, Animal Feed Storage	Intensive Agriculture (R-IA)	Exclusive Agriculture (A)
South of Project Site	Agriculture, Residential, Public School	Intensive Agriculture (R-IA)	Exclusive Agriculture (A)
East of Project Site	Agriculture, Residential, Private School	Intensive Agriculture (R-IA), Rural Residential (RR), Public and Private Schools (PS)	Limited Agriculture (A-1), Limited Agriculture/Mobile Home (A-1-MH), Exclusive Agriculture (A)
West of Project Site	Agriculture, Residential	Intensive Agriculture (R-IA)	Exclusive Agriculture (A)

1.4.2 Proponent Submitted Project Objectives

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

- Develop an innovative industrial use on land with ready access to infrastructure and a major transportation corridor.
- Meet regional demand for new warehouse facilities near State Route (SR) 99 to reduce local and regional traffic congestion and air emissions.
- 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 agricultural uses by developing a compatible industrial project with a secure perimeter.
- 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.

- Improve circulation through the construction of new roads and improvement of existing roads west of SR-99.
- Site an industrial project in a location that minimizes conflicts with residential, conservation, and agricultural uses.

1.4.3 Project Characteristics

Project Overview and Design

The project applicant proposes to develop a 653,442-square-foot single-story warehouse and distribution facility and related improvements. The facility would receive and consolidate products from vendors and then ship these products to other fulfillment centers within the network.

The proposed facility has a footprint of approximately 629,186 square feet (including approximately 44,424 square feet of office space) that would primarily facilitate material handling equipment and warehouse uses, as shown in **Figure 3-3b**, *Proposed Precise Development Plan – Site Plan Overview*. The remaining square footage is made up of a 24,256-square-foot mezzanine, which contains only material handling equipment conveyors with occasional maintenance and no storage. The proposed project would also include two guardhouses and one pumphouse. **Table 1-2:** *Project Summary* provides a project summary of the proposed project.

TABLE 1-2: PROJECT SUMMARY

Acreage	Proposed Use	End Building Footprint	Maximum Building Height	Truck Trailer Parking Spaces	Dock	Automobile Parking Spaces	Truck Trailer Spaces
93.74 acres	Approximately 653,442-square-foot high-cube warehouse	629,186	+/-50 feet	135		1,000 stalls	702 stalls

Source: Ware Malcomb, March 2023.

The proposed warehouse building would be concrete tilt-up panel construction with insulated metal panels. The proposed building roof would consist of metal decking over steel bar joists. The maximum overall height of the facility would be approximately 50 feet high. The warehouse would be exclusively truck-served, meaning it would be utilized by delivery trucks. **Table 1-3:** *Truck Door Summary* is a summary of the assignment of truck doors by type.

TABLE 1-3: TRUCK DOOR SUMMARY

Type	Doors (approximately)
Dock-High Doors	132
Grade-Level Doors	4
Total	136

Source: Ware Malcomb, March 2023.

Parking

Table 1-4: *Parking* Summary is a summary of the assignment of parking spaces by type.

TABLE 1-4: PARKING SUMMARY

Type	Stalls (approximately)
Automobile	1,000
Truck Trailer	702
Dock Trailer	135
Accessible	22 (4 Van, 18 Standard)
Electric Vehicle Charging Stations (EVCS)	200
EV Supply Equipment (EVSE)	50
Accessible EVCS	12 (2 Van, 5 Standard, 5 Ambulance)
Motorcycle	16
Bicycle	40

Source: Ware Malcomb, March 2023

Substation

The proposed substation would be located at the northeast portion of the site and would include circuit breakers, disconnect switches, metering protection equipment, and main step-up transformers. The substation required to step up the power generated by the project to transmission voltage would be located immediately inside the northeastern property line. The substation would occupy an area that would be approximately 172 feet by 256 feet in size. The substation would be enclosed by a 6-foot-high chain-link fence topped with barbed wire, and gravel would cover the ground surface in accordance with Pacific Gas & Electric (PG&E) Substation requirements. Lighting would be installed in the substation for security and for use at times when nighttime emergency repair work is required.

Vehicular Access and Circulation

A new private road would be constructed along the eastern and southern perimeter of the project site to connect Houghton Road and Wible Road. The road would be two lanes and designed to accommodate heavy trucks. The new intersection of Houghton Road and the new eastern perimeter road would be signalized. The intersection of Wible Road and Houghton Road would also be signalized.

The proposed project would include approximately 5.54 acres of off-site improvements, as shown in **Figure 3-4**, *Project Off-site Roadway and Frontage Improvements*. The project frontage along Houghton Road and Wible Road would be improved to meet applicable Kern County standards as follows.

The existing roads, classified as major arterials, would be improved with new pavement, raised median, curb and gutter, and sidewalk. Additionally, signing and markings would be constructed for the new pavement delineations. Improvements to Houghton Road and Wible Road are detailed on **Figure 3-9**, *Project Off-site Roadway and Frontage Improvements (Houghton Road Cross Section)* and **Figure 3-10**, *Project Off-site Roadway and Frontage Improvements (Wible Road Cross Section)*.

Landscaping

The proposed project would include approximately 217,529 square feet (4.99 acres) of landscaping and irrigation, which would consist primarily of drought tolerant and low maintenance plants. Islands with canopy trees would be provided to reduce heat island effect, which is a phenomenon whereby denser development experiences higher air temperatures than surrounding rural and undeveloped landscapes. Landscaping would also be utilized to provide visual screening where needed. Native hydroseed mix and rock cobble will be applied to large areas where landscaping and irrigation is not practical due to non-employee use. Landscaping would exceed the 5 percent landscaping requirement of Section 19.86.060 of the Kern County Zoning Ordinance. There are no existing trees on-site, and therefore no trees would be required to be removed.

Phasing and Construction

Schedule and Workforce

For the purposes of this environmental analysis, the following construction schedule was assumed to last approximately 16 months. Grading of the proposed project would start in July 2024. and would last approximately 20 days. Construction would be completed in a single phase, beginning in September 2024, and concluding in September 2025. It is anticipated that the proposed project would be operational in 2025. Should commencement of construction be delayed, the utilization of July 2024 represents a conservative analysis for the purposes of this Draft EIR.

Construction would primarily occur Monday through Friday between 7:00 a.m. and 8:00 p.m., as required to meet the construction schedule. Additional hours/days may be necessary to facilitate the schedule. Any construction work performed outside of the normal work schedule would be coordinated with the appropriate agencies and would conform to the Kern County Noise Ordinance (Chapter 8.36). As noted in the Noise Ordinance, there are no limits to construction hours if a project is not within 1,000 feet of residences, however, the nearest residence is approximately 400 feet from the southwest corner of the proposed project site.

The on-site construction workforce would consist of up to 100 individuals; however, the average daily workforce would vary depending upon the stage in 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 prior to the beginning of each workday. Parking for construction personnel would be provided on-site. Portable toilets would be used and would be maintained by a private off-site company during the construction period.

Construction Activities and Equipment

Construction activities would consist of site preparation, grading, building construction, paving, and architectural coating. During construction, a temporary on-site batch plant would be necessary and assembled to manufacture and construct the facility and related improvements. This on-site batch plant will be disassembled after construction is complete.

Construction Water Use and Wastewater

During construction of the proposed project, water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading.

Water required during construction would be supplied by the service laterals extended from the existing water line located within Wible Road; water is not expected to require treatment for construction use.. Dust control water may be used for ingress and egress of on-site construction vehicle equipment traffic and for the construction of the warehouse infrastructure. A sanitary water supply would not be required during construction, because restroom facilities would be provided by portable units to be serviced by licensed providers.

Solid and Non-hazardous Waste Disposal

During construction, the building contractor would arrange to have corresponding bins for trash, construction recycling, and regular recycling 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.

Hazards and Hazardous Materials Compliance

The 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. A hazardous materials business plan would be provided to the Kern County Public Health Services Department/Environmental Health 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, 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 (e.g., 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 (OSHA), Title 9 of the Code of Federal Regulations, and Title 8 of the California Code of Regulations. The construction contractor selected for the project would be responsible for ensuring that construction workers are trained in accordance with local, State, and federal requirements for handling hazardous materials.

1.4.4 Project Operations and Maintenance

The proposed facility would operate 24 hours a day, 365 days a year and typically consist of both day and night shifts. The facility would employ approximately 915 employees per shift (two shifts, for a total of 1,830 employees) in peak season and approximately 732 employees per shift (two shifts for a total of 1,464 employees) in non-peak season. Once operational, the proposed project would utilize standard equipment such as electric forklifts and pallet jacks.

Vehicular Access and Circulation

The proposed project would generate approximately 145 daily truck trips. Ingress to the proposed project would be taken from the new southern perimeter road via the existing Wible Road. The southern perimeter road driveways would serve the employee parking lot as well as the truck entrance and exit. The eastern entrance would feature a primary guardhouse. Truck egress would occur at the western entrance of the southern perimeter road, which would also feature a secondary guardhouse.

Utilities and Infrastructure

The proposed project would be served with potable water provided by Cal Water. Service laterals would be extended from an existing water line located within Wible Road. The project proposes a single water tank for fire suppression volume.

The proposed project would be served by a private wastewater collection and treatment package system located on-site to accommodate the wastewater needs. Electricity services would be provided by PG&E during construction. Once operational, a substation would be located at the northeast corner of the project site and would provide power generation for the on-site building. Natural gas would not be required for project operation.

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 one of three detention basins located at the southwest and southeast corners of the project site, as well as near the northern frontage of the project site along Houghton Road. 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.

Solid and Non-hazardous Waste Disposal

The proposed project would produce a small amount of waste associated with maintenance activities, which could 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 on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill. The closest Class III municipal landfill is the Bena Sanitary Landfill.

Hazards and Hazardous Materials Compliance

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.

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.

1.5 Environmental Impacts

CEQA Guidelines Section 15128 requires that an EIR 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 Draft 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/initial study (NOP/IS) prepared in accordance with the *CEQA Guidelines*, as well as public and agency input that was received during the scoping process. Comments received on the NOP/IS are located in Appendix A of this Draft EIR. Based on the findings of the NOP/IS and the results of scoping, a determination was made that this EIR must contain a comprehensive analysis of all environmental issues identified in *CEQA Guidelines* Appendix G.

1.5.1 Impacts of the Proposed Project

Sections 4.1 through 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 1-8, *Summary of Impacts, Mitigation Measures, and Levels of Significance***, located at the end of this chapter, and are discussed further below.

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

- Aesthetics
- Agriculture 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
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfires

1.5.2 Less Than Significant Impacts

Table 1-5: *Summary of Project Impacts That Are Less than Significant or Less than Significant with Mitigation* presents those impacts of the project that were determined to be less than significant by themselves, or less than significant with implementation of mitigation measures. Less than significant cumulative impacts are also included in this table. **Sections 4.1 through 4.20** of this Draft EIR present detailed analysis of these impacts and describe the means by which the mitigation measures listed in **Table 1-5** would reduce impacts to a less than significant level.

TABLE 1-5: SUMMARY OF PROJECT IMPACTS THAT ARE LESS THAN SIGNIFICANT OR LESS THAN SIGNIFICANT WITH MITIGATION

Impact	Mitigation Measures
Air Quality (Project)	MM 4.3-1 through MM 4.3-10
Biological Resources (Project and Cumulative)	MM 4.4-1 through MM 4.4-11
Cultural Resources (Project and Cumulative)	MM 4.5-1 and MM 4.5-4
Energy (Project and Cumulative)	MM 4.3-3, MM 4.6-1, and MM 4.6-2
Geology and Soils (Project and Cumulative)	MM 4.7-1 through MM 4.7-12
Hazards and Hazardous Materials (Project and Cumulative)	MM 4.7-8, MM 4.9-1 through MM 4.9-15, MM 4.15-1, MM 4.17-3, and MM 4.19-9
Hydrology and Water Quality (Project)	MM 4.10-1, MM 4.10-2, MM 4.7-8, MM 4.9-3, MM 4.19-7, and MM 4.19-8
Land Use and Planning (Project and Cumulative)	No mitigation required
Mineral Resources (Project and Cumulative)	No mitigation required
Noise (Project and Cumulative)	MM 4.13-1 through MM 4.13-3
Population and Housing (Project and Cumulative)	No mitigation required
Public Services (Project and Cumulative)	MM 4.9-13 and MM 4.15-1 through MM 4.15-3

TABLE 1-5: SUMMARY OF PROJECT IMPACTS THAT ARE LESS THAN SIGNIFICANT OR LESS THAN SIGNIFICANT WITH MITIGATION

Impact	Mitigation Measures
Recreation	No mitigation required
Tribal Cultural Resources (Project and Cumulative)	MM 4.5-1 through MM 4.5-3
Utilities and Service Systems (Project)	MM 4.19-1 through MM 4.19-9
Wildfire (Project and Cumulative)	MM 4.7-8, MM 4.9-13, MM 4.10-1, MM 4.10-2, and MM 4.15-1

1.5.3 Significant and Unavoidable Impacts

CEQA Guidelines Section 15126.2(b) requires that the EIR describe any significant impacts, including those that can be mitigated but not reduced to less than significant levels. Potential environmental effects of the project and proposed mitigation measures are discussed in detail in **Chapter 4, Environmental Setting, Impacts, and Mitigation Measures**, of this Draft EIR.

According to *CEQA Guidelines* Section 15355, the term 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 be 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 has considered the potential cumulative effects of the project along with other current and reasonably foreseeable projects. Impacts for the following have been found to be cumulatively considerable:

- Aesthetics
- Agricultural and Forestry Resources
- Air Quality
- Greenhouse Gas Emissions
- Hydrology and Water Quality
- Transportation
- Utilities and Service Systems

Table 1-6: *Summary of Significant and Unavoidable Project-Level and Cumulative Impacts of the proposed project*, presents those impacts at the project level and cumulatively. **Sections 4.1, 4.2, 4.3, 4.8, 4.10, 4.17, and 4.19** of this Draft EIR present detailed analyses of these impacts and describe the means by which the mitigation measures listed in Table 1-6 would reduce the severity of impacts to the extent feasible.

TABLE 1-6: SUMMARY OF SIGNIFICANT AND UNAVOIDABLE PROJECT-LEVEL AND CUMULATIVE IMPACTS OF THE PROPOSED PROJECT

Resources	Project Impacts	Cumulative Impacts
Aesthetics	<p>Implementation of the proposed project would result in potentially significant visual impacts to the existing visual quality or character of the site and surrounding area, as outlined in Section 4.1, Aesthetics, Impact 4.1-3. Mitigation Measure MM 4.1-1 through MM 4.1-3 would be incorporated to reduce visual impacts that would occur from the collection of debris along the site boundary and would limit vegetation removal and plant native vegetation. However, because there are no feasible mitigation measures that can be implemented to maintain the existing open and undeveloped landscape character of the project site, impacts to visual resources would remain significant and unavoidable.</p>	<p>The proposed project would have cumulatively significant and unavoidable aesthetic impacts related to visual character despite implementation of mitigation. Although implementation of Mitigation Measures MM 4.1-1 through MM 4.1-5 would reduce the adverse visual changes experienced at individual viewpoints, there are no mitigation measures that would allow for the preservation of the existing visual character of the area. The conversion of approximately 93.74 acres of undeveloped land to a solar energy production facility is considered a significant and unavoidable cumulative impact.</p>
<p>Agricultural and Forestry Resources</p>	<p>As detailed in Section 4.2, Agriculture and Forestry Resources, Impact 4.2-1, implementation of the proposed project would not conflict with an existing Williamson Act Contract, however, it would require various land use entitlements, including changes from existing land use designations and zoning from agricultural to industrial, as well as the exclusion from Agricultural Preserve No. 10. Despite implementation of Mitigation Measures MM 4.2-1 through MM 4.2-4, it has been determined that no feasible mitigation is available to reduce impacts related to the proposed project’s zoning change; therefore, impacts related to the cancellation of an open space contract would be significant and unavoidable.</p> <p>As detailed in Section 4.2, Agriculture and Forestry Resources, Impact 4.2-2, implementation of the proposed project would result in the conversion of Prime Farmland and Unique Farmland to industrially designated and zoned land. No feasible mitigation is available to reduce impacts related to the proposed project’s zoning change, and therefore impacts related to the cancellation of an open space contract would be significant and unavoidable.</p>	<p>The proposed project would convert approximately 93.74 acres of agricultural land to nonagricultural uses, with an additional 5.54 acres of off-site improvements. Development of the proposed project would result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), and the proposed project’s contribution to the conversion of agricultural land to nonagricultural uses would be cumulatively considerable. The proposed project’s incremental effect is 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, and thus cumulative impacts would be significant and unavoidable.</p> <p>The proposed project would result in a significant impact involving an Agricultural Preserve Exclusion and would conflict with the project site’s existing zoning. Cumulative projects, including the proposed project, which are included in Agricultural Preserves and zoned for agricultural uses, would similarly result in conflicts related to Agricultural Preserve Exclusions and zoning conflicts. As explained under Impact 4.2-2, no feasible mitigation is available to reduce impacts related to zoning conflicts. The proposed project’s incremental effect is cumulatively</p>

TABLE 1-6: SUMMARY OF SIGNIFICANT AND UNAVOIDABLE PROJECT-LEVEL AND CUMULATIVE IMPACTS OF THE PROPOSED PROJECT

Resources	Project Impacts	Cumulative Impacts
Air Quality	N/A	<p>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, and thus cumulative impacts would be significant and unavoidable.</p> <p>The proposed project would have cumulatively significant and unavoidable air quality impacts related to consistency with existing air quality plans due to the net increase of criteria pollutants emissions after implementation of mitigation. Although with implementation of mitigation measures the proposed project would not result in significant levels of criterial pollutants during construction or operations, it is speculative to determine how the project’s incremental increase in emissions 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. As such, cumulative impacts for criteria pollutants would be considered significant and unavoidable.</p>
Greenhouse Gas Emissions	<p>As described in Section 4.8, Greenhouse Gas Emissions, Impact 4.8-1, compared to relevant climate goals related to reducing GHG emissions, the proposed project’s VMT per capita, and thus its mobile source emissions from VMT, are inconsistent with the target set forth in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Although the proposed project would be required to implement a TDM program to reduce VMT as described under Mitigation Measures MM 4.17-2, it is unclear whether the TDM program would reduce project VMT to below thresholds. Furthermore, Mitigation Measures MM 4.8-1 and MM 4.8-2 would be required, which would require the proposed project to utilize only electric powered off-road equipment and stipulates requirements if the proposed project requires cold storage in the future. Even with implementation of Mitigation Measures MM 4.17-2, MM 4.8-1, and MM 4.8-2, the</p>	<p>As described in Section 4.8, Greenhouse Gas Emissions, the proposed project’s cumulative impact on global climate change is considered to be significant and unavoidable even with the implementation of Mitigation Measures MM 4.17-2, MM 4.8-1, and MM 4.8-2, as GHG impacts are exclusively cumulative.</p>

TABLE 1-6: SUMMARY OF SIGNIFICANT AND UNAVOIDABLE PROJECT-LEVEL AND CUMULATIVE IMPACTS OF THE PROPOSED PROJECT

Resources	Project Impacts	Cumulative Impacts
	<p>proposed project would have a significant and unavoidable impact related to GHG emissions.</p>	
<p>Hydrology and Water Quality</p>	<p>N/A</p>	<p>Similar to the proposed project, cumulative projects would not discharge to waters of the United States due to their location within the San Joaquin Valley, which is effectively a closed basin with no outlet to the Pacific Ocean. All projects would be required to either retain all runoff on-site or would be required to prepare a SWPPP. For water supply, the proposed project would be expected to result in a net reduction in water consumption relative to what is currently used on-site to irrigate the row crops. With respect to erosion, drainage, and flooding, impacts from cumulative scenario projects would be primarily localized. It is anticipated that cumulative scenario projects would be required to implement BMPs and measures similar to Mitigation Measures MM 4.10-1, MM 4.10-2, MM 4.7-8, MM 4.9-3 and MM 4.19-7, and MM 4.19-8, in order to avoid erosion, drainage, and flooding related impacts. However, as 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 could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible and reasonable mitigation.</p>
<p>Transportation and Traffic</p>	<p>As described in Section 4.17, Transportation and Traffic, Impact 4.17-2, the proposed project would result in an increase in VMT per employee of 0.2 percent above regional thresholds. While the proposed project would develop a Transportation Demand Management Program as outlined in Mitigation Measure MM 4.17-2, it is unlikely that the proposed project would reduce employee VMT below significant levels. There is no feasible mitigation available to reduce impacts related to the proposed project’s VMT, and therefore impacts related to VMT would be significant and unavoidable.</p>	<p>The proposed project would result in significant impacts related to VMT per employee. Development of the project, with implementation of the existing regulatory requirements and Mitigation Measure MM 4.17-2 discussed above, would result in a significant and unavoidable impact to VMT standards. It cannot be assumed that cumulative projects would be required to implement mitigation measures similar to those outlined in Mitigation Measure MM 4.17-2 or that their effects would be reduced to less than significant levels. For this reason, the proposed project’s incremental effect is cumulatively considerable when viewed in connection with</p>

TABLE 1-6: SUMMARY OF SIGNIFICANT AND UNAVOIDABLE PROJECT-LEVEL AND CUMULATIVE IMPACTS OF THE PROPOSED PROJECT

Resources	Project Impacts	Cumulative Impacts
Utilities System Services	N/A	<p>the effects of other closely related project and the effects of probable future projects. As such, cumulative impacts for transportation VMT would be considered significant and unavoidable.</p> <p>Similar to the proposed project, all projects in the project area would be served by a private wastewater treatment plant onsite through the implementation of Mitigation Measures MM 4.19-1 through MM 4.19-4, and would not contribute to any cumulative impact on regional wastewater treatment. The stormwater retention basins included in the Precise Development Plan would adhere to all County requirements and would not contribute to cumulative impacts as well. Demand associated with energy and telecommunication services would be minimal and is expected to be within the planning forecasts of the affected providers. Therefore, cumulative impacts related to electricity and telecommunications facilities would not be cumulatively significant. There are no natural gas facilities planned for the proposed project.</p> <p>Cal Water would have the ability to meet the City’s projected normal, dry, and multiple-dry year scenarios, and with the implementation of Mitigation Measures MM 4.19-7 and MM 4.19-8, any groundwater pumping onsite would be required to come from wells equipped with water meters, and the appropriate Groundwater Sustainability Agencies and the Kern County Water Agency would be notified. However, as 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 could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible and reasonable mitigation.</p>

1.5.4 Growth Inducement

The Kern County General Plan recognizes that certain forms of growth are beneficial, both economically and socially. *CEQA Guidelines* Section 15126.2© 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 be a result of new development that requires an increase in employment levels, removes barriers to development, or provides resources that lead to secondary growth.

The proposed project does not include the construction of housing, and would therefore not result in direct population growth as a result of additional housing. With respect to employment, the project would not induce substantial growth. The number of on-site construction workers needed would largely depend on the specific phase of construction but would likely range between a few dozen workers up to 100 at any given time. During project operation, proposed project would employ approximately 915 employees per shift (1,830 total) in peak season and 732 employees per shift (1,464 total) in non-peak season. It is anticipated that the construction and operational workforce would commute to the project site from local communities.

As described in **Section 4.14, *Population and Housing***, the unemployment rate in the proposed project region was 7.5 percent in September 2023. This regional unemployment rate is still above the California unemployment rate (4.5 percent) and national average (3.6 percent). Thus, the temporary and permanent employees required by the proposed project could come from the surrounding areas, without the need for relocation. The proposed project would not create additional infrastructure or road extensions that would indirectly induce population growth. As described in **Section 4.17, *Utilities and Service Systems***, the proposed project would connect to existing service laterals located within Wible Road and Houghton Road for electricity during construction, and water services during construction and operation. Electricity and natural gas service would be provided by PG&E during construction. Once operational, a substation would be located at the northeast corner of the project site and would provide power generation for the on-site building. Natural gas would not be required for project operation. The proposed project would include its own on-site storm drainage and private wastewater collection and treatment package system on-site, and therefore would not require connection to existing storm drains or wastewater laterals. Because no extension of infrastructure into unserved areas would be required, no removal of physical barriers to growth would occur.

1.5.5 Irreversible Impacts

CEQA Guidelines Section 15126.2(c) 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 the project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified.

Buildout of the proposed project would commit nonrenewable resources during project construction. 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. 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, as a matter of public policy, those commitments have been determined to be acceptable. The Metropolitan Bakersfield General Plan ensures that any irreversible environmental changes associated with those commitments will be minimized.

Additionally, the proposed 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 proposed project would result in an irretrievable commitment of nonrenewable resources, the commitment of these resources would not be inefficient, unnecessary, or wasteful.

1.6 Alternatives to the Proposed Project

CEQA Guidelines Section 15126.6 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 environmental impacts of the project, the aforementioned objectives established for the project and the feasibility of the alternatives considered, a range of alternatives is analyzed below and discussed in detail in **Chapter 6, Alternatives**, of this Draft EIR.

1.6.1 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)(2)). Kern County considered several alternatives to reduce impacts to aesthetics (project and cumulative), air quality (cumulative only), greenhouse gas emissions (project and cumulative), hydrology and water quality (cumulative), transportation (project and cumulative), and utilities and service systems (cumulative) and. Per CEQA, the lead agency may make an initial determination as to which alternatives are feasible and warrant further consideration, and which are infeasible.

1.6.2 Alternatives Selected for Analysis

The following alternatives have been determined to represent a reasonable range of alternatives that have the potential to feasibly attain most of the basic objectives of the project, but which may avoid or substantially lessen any of the significant impacts of the project. The following alternatives are summarized below but further analyzed in detail in **Chapter 6, Alternatives** the EIR:

- Alternative 1: No Project Alternative
- Alternative 2: Reduced Footprint Alternative
- Alternative 3: Alternative Site Alternative

Table 1-7: *Summary of Development Alternatives* provides a summary of the relative impacts and feasibility of each alternative and **Table 1-8** provides a summary side-by-side comparison of the potential impacts of the alternatives and the project. A complete discussion of each alternative is provided below.

TABLE 1-7: SUMMARY OF DEVELOPMENT ALTERNATIVES

Alternative	Description	Basis for Selection and Summary of Analysis
Project	Construction and operation of a concrete tilt-up warehouse on approximately 93.74 acres. Development would include an electrical substation, water treatment facility, internal private drive aisle, and two guardhouses. Approval of a GPA, Zone Change, CUP's, Agricultural Preserve Exclusion Precise Development Plan, Conditional Use Permits, and Tentative Parcel Map for construction and operation of the proposed project would be required.	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 GPA, ZCC, CUPs, PD Plan, ZV, TPM. • Avoids all significant and unavoidable impacts • Less impact in all environmental issue areas
Alternative 2: Reduced Footprint Alternative	Project site would be developed with a footprint that has been reduced by 50 percent. All entitlements for the proposed project would remain required.	<ul style="list-style-type: none"> • Similar impacts to biological resources, cultural resources, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, tribal cultural resources. • No issue areas with greater impacts. • Less impact to aesthetics, agriculture and forestry resources, air quality, energy, geology and soils, Greenhouse Gas emissions, hydrology and water quality, noise, transportation, and utilities and system services, wildfires.
Alternative 3: Alternative Site Alternative	Construction and operation of the warehouse and associated development on an alternative site located approximately 50 miles southeast of the proposed project site. Required entitlements for the Alternative Site Alternative would be dependent on the site selected.	<ul style="list-style-type: none"> • Similar impacts to aesthetics, agriculture and forestry resources, air quality, energy, Greenhouse Gas emissions, public services, recreation • Greater impacts to all other issue areas • No issue areas with less impact

TABLE 1-8: COMPARISON OF ALTERNATIVES

Environmental Resource	Project	Alternative 1: No Project Alternative	Alternative 2: Reduced Footprint Alternative	Alternative 3: Alternate Site Alternative
Aesthetics	Significant and unavoidable impact (project and cumulative)	Less (NI)	Less (SU)	Similar (SU)
Agriculture and Forestry Resources	Significant and unavoidable impact (project and cumulative)	Less (NI)	Less (SU)	Similar (SU)
Air Quality	Significant and unavoidable impact–construction (project and cumulative) Less than significant impact with mitigation incorporated - operational (project and cumulative)	Less (NI)	Less (SU)	Similar (SU)
Biological Resources	Less than significant impact with mitigation incorporated	Less (NI)	Similar (LTS)	Greater (SU)
Cultural Resources	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Energy	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Geology and Soils	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Greenhouse Gas Emissions	Significant and unavoidable impact (project and cumulative)	Less (NI)	Similar (SU)	Similar (SU)
Hazards and Hazardous Materials	Less than significant impact with mitigation incorporated	Less (NI)	Similar (LTS)	Greater (SU)
Hydrology and Water Quality	Significant and unavoidable (cumulative)	Less (NI)	Less (SU)	Greater (SU)
Land Use and Planning	Less than significant impact with mitigation incorporated	Less (NI)	Similar (LTS)	Greater (SU)
Mineral Resources	Less than significant impact	Less (NI)	Similar (LTS)	Greater (SU)
Noise	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Population and Housing	Less than significant impact	Less (NI)	Similar (NI)	Greater (SU)
Public Services	Less than significant impact with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Recreation	Less than significant impact	Less (NI)	Similar (LTS)	Similar (LTS)
Transportation	Significant and unavoidable impact (project and cumulative)	Less (NI)	Less (LTS)	Greater (SU)
Tribal Cultural Resources	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)

Environmental Resource	Project	Alternative 1: No Project Alternative	Alternative 2: Reduced Footprint Alternative	Alternative 3: Alternate Site Alternative
Utilities and Service Systems	Significant and unavoidable (cumulative)	Less (NI)	Less (LTS)	Greater (SU)
Wildfires	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Meet Project Objectives?	All	None	All	All
Reduce Significant and Unavoidable Impacts?	N/A	All	Partially	None

1.6.3 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 General Plan Amendment (GPA), Zone Classification Change (ZCC), Conditional Use Permits (CUP), Precise Development Plan, Exclusion from Agricultural Preserve, Zone Variance (ZV) and Tentative Parcel Map for construction and operation of a warehouse and logistics facility. Under the No Project Alternative, the project site would maintain the current zoning, land use classifications, and existing land uses of cultivated agricultural land. No physical changes would be made to the project site.

1.6.4 Alternative 2: Reduced Footprint Alternative

Alternative 2, the Reduced Footprint Alternative, would develop the proposed project at the same project site with a footprint reduced by 50 percent. This alternative would include a 326,721-square-foot warehouse and distribution facility and related improvements. The proposed facility would have a footprint of approximately 314,593 square that would primarily facilitate material handling equipment and warehouse uses. The facility would feature 66 truck doors, approximately 500 automobile parking spaces, and approximately 2.5 acres of landscaping and irrigation improvements. This alternative would result in a reduction of the development footprint, as well as a reduction in employee and truck trip generation, traffic, and emissions impacts compared to the proposed project. This alternative would require the same entitlements as the proposed project.

1.6.5 Alternative 3: Alternate Site Alternative

Alternative project sites are typically evaluated in CEQA documentation in order to avoid, reduce, or eliminate significant and unavoidable impacts associated with the proposed 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 proposed 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 proposed project, and likewise may not avoid or substantially reduce the environmental impacts of the proposed project.

Under Alternative 3, the Alternative Site Alternative, the proposed project would be developed on a site located within the Mojave Specific Plan Area of similar size to the project site. 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. The intention of this project alternative is to find a project site closer to a major city and reduce required travel distances for distribution trucks and related impacts to aesthetics, agriculture and forestry, air quality, GHG, and traffic associated with the proposed project. Under this alternative, the current project site would maintain the current zoning, land use classifications, and existing land uses, which consists of cultivated agricultural land. The proposed project would be developed at a site approximately 50 miles southeast of the proposed project site in unincorporated Kern County. The entitlements for this project would be dependent on the site selected within the planning area.

1.6.6 Environmentally Superior Alternative

As presented in the comparative analysis above, and as shown in **Table 6-2**, there are a number of factors in selecting the Environmentally Superior Alternative. An EIR must identify the Environmentally Superior Alternative to the proposed 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 the Reduced Footprint Alternative. This alternative would not avoid significant impacts associated with the proposed project, however no impacts would be greater than the proposed project. This alternative would result in less impact to aesthetics, agriculture and forestry resources, air quality, cultural resources, energy, geology and soils, hydrology and water quality, noise, transportation, tribal cultural resources, utilities and service systems and wildfire. Thus, for most environmental issue areas, this alternative would result in fewer environmental impacts, both short-term and long-term, when compared to the project. Therefore, because this alternative reduces impacts to a greater degree than the Alternative Site Alternative, the Reduced Footprint Alternative is considered the Environmentally Superior Alternative.

1.7 Areas of 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 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*:

- Impacts related to agriculture
- Impacts related to air quality
- Impacts to biological resources
- Impacts to cultural resources (archaeological resources)
- Impacts related to greenhouse gas emissions
- Impacts related to hydrology and water quality
- Impacts related to mineral resources
- Impacts related to noise
- Impacts related to public services (schools)
- Impacts related to traffic
- Impacts related to tribal cultural resources

1.8 Issues to Be Resolved

CEQA Guidelines Section 15123(b)(3) requires that an EIR contains issues to be resolved, which includes the choices among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved:

- Determine whether the EIR adequately describes the environmental impacts of the project;
- Choose among alternatives;
- Determine whether the recommended mitigation measures should be adopted or modified; and
- Determine whether additional mitigation measures need to be applied to the project.

1.9 Summary of Environmental Impacts and Mitigation Measures

Table 1-9: *Summary of Impacts, Mitigation Measures, and Levels of Significance* summarizes the environmental impacts of the project, mitigation measures, and unavoidable significant impacts identified and analyzed in **Sections 4.1 through 4.20** of this EIR. Refer to the appropriate EIR section for additional information.

TABLE 1-9: SUMMARY OF IMPACTS, MITIGATION MEASURES, AND LEVELS OF SIGNIFICANCE

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
4.1 Aesthetics			
Impact 4.1-1: The project would have a substantial adverse effect on a scenic vista.	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 s building permit for the proposed project, the project applicant 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: The following aesthetic features shall be required in site plans and building permits for commercial buildings located within 1,000 feet of the Houghton Road and Wible Road corridors:</p> <ol style="list-style-type: none"> a. Rooftop screening features shall be installed to create a visual screen for rooftop mechanical equipment, such as a parapet or screening material. b. Reflective metal exteriors shall not be used as exterior architectural elements in buildings immediately adjacent to Houghton Road and Wible Road. <p>MM 4.1-3: Prior to the issuance of grading or building permits for any facilities on the project site, the project applicant shall submit, to the Kern County Planning and Natural Resources Department, a landscape plan that complies with the Kern County Zoning Ordinance requirements in Chapter 19.-6 - Landscaping.</p>	Significant and unavoidable impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>The plan shall include:</p> <ol style="list-style-type: none"> a. Preparation by a licensed Landscape Architect and approval by the Kern County Planning and Natural Resources Department Director prior to buffer planting; b. California native, drought-tolerant plants; c. An irrigation plan as required under the Kern County Zoning Ordinance 19.86.070; d. 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 may be chain-link with view obscuring slats. e. A 20-foot wide perimeter buffer along any visible boundary from the Houghton Road and Wible Road frontages consisting of: live ground cover, shrubs, or grass, and: <ol style="list-style-type: none"> 1. One (1) tree having a minimum planting height of six (6) feet for every 50 lineal feet of buffer; 2. Evergreen shrubs which reach a minimum height of four (4) to six (6) feet. 3. 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. 4. 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. 5. Landscaping shall be installed prior to final occupancy. 	
<p>Impact 4.1-4: The project would create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.</p>	<p>Potentially significant impact</p>	<p>MM 4.1-4: The project shall continuously comply with the applicable provisions of the Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance), and shall be designed to provide the minimum illumination needed to achieve safety and security objectives.</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Lenses and bulbs shall not extend below the shields.</p> <p>MM 4.1-5: Prior to the issuance of building permits for any facilities on the project site, the project applicant shall submit, and the Kern County Planning and Natural Resources Department shall have approved, plans verifying all outdoor lighting is designed so that all direct lighting is confined to the project site property lines and that adjacent properties and roadways are protected from spillover light and glare.</p>	
Impact 4.1: Cumulative Impacts	Potentially significant impact	Implementation of MM 4.1-1 through MM 4.1-5 is required.	<p>Significant and unavoidable impact (Visual Character)</p> <p>Less than significant impact (Scenic Vista, Scenic Resource; Light and Glare)</p>

4.2 Agriculture and Forestry Resources

<p>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.</p>	Significant and unavoidable impact	<p>MM 4.2-1: Prior to the issuance of building permits, a site plan shall be submitted to the Kern County Planning and Natural Resources Department showing a minimum 100’ building setback from the property line of adjacent property (defined as property that shares a property line) Zoned A (Exclusive Agriculture) to eliminate interference with current or future agricultural operations. Project design features such as roads, berms, required landscaping and parking lots are permitted within the required setback area.</p> <p>MM 4.2-2: Prior to issuance of building permits, the project proponent shall ensure that the following note appears on all site plans associated with the project. The project proponent shall also require a form with the same note to be signed by all future occupants of the facility and be provided to the County.</p> <p><i>“The County of Kern encourages operation of properly conducted businesses in agriculture, oil, mining, manufacturing, and other nonresidential operations within the County. If the property you are</i></p>	Significant and unavoidable impact
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Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p><i>purchasing is located near these businesses, you may be subject to inconveniences or discomforts arising from such operations to the extent allowed by law. This notice does not waive your legal rights.”</i></p> <p>MM 4.2-3: Prior to the issuance of building permits, a summary report shall be submitted to the Kern County Planning and Natural Resources Department describing how project is designed to reduce conflicts to the extent feasible between the project’s operation and the continued use of adjacent properties zoned A (Exclusive Agriculture. Design considerations shall include, but not be exclusive to: windows that open and ventilation systems placed so as to not bring in air adjacent to active agricultural operations; project egress and ingress not be in conflict with agricultural operations or access; sufficient on-site parking to discourage parking on or adjacent to agricultural lands; prohibition of such off-site parking; provisions for physical buffers or zones between the project and agriculturally zoned properties that reduce conflicts between agricultural uses and the project.</p> <p>MM 4.2-4: The project proponent/operator shall continuously comply with the following:</p> <ol style="list-style-type: none"> a. The construction contractor or project personnel shall use herbicides that are approved for use in California, and are appropriate for application adjacent to natural vegetation areas and agricultural use. Personnel applying herbicides shall have all appropriate State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use. b. Herbicides shall be mixed and applied in conformance with the manufacturer’s directions. c. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used. d. To minimize harm to wildlife, vegetation, and water bodies, herbicides shall not be applied directly to wildlife. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		e. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed. f. Herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water. g. 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. h. A written record of all herbicide applications on the site, including dates and amounts, shall be maintained and provided to the Kern County Planning and Natural Resources Department, if requested.	
Impact 4.2-2: The project would conflict with existing zoning for agricultural use or Williamson Act Contract.	Significant and unavoidable impact	No feasible mitigation.	Significant and unavoidable 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.	Potentially significant impact	Implementation of Mitigation Measures MM 4.2-1 through MM 4.2-4, MM 4.9-1 through MM 4.9-3 would be required (see Section 4.9, <i>Hazards and Hazardous Materials</i> , for full mitigation measure text).	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.2: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.2-1 through MM 4.2-4 , MM 4.9-1 through MM 4.9-3 (see Section 4.9, <i>Hazards and Hazardous Materials</i> , for full mitigation measure text).	Significant and unavoidable 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 proposed project shall continuously comply with the following: Construction and operation of the project shall be conducted in compliance with applicable rules and regulations set forth by the San Joaquin Valley Air Pollution Control District (SJVAPCD). Dust control measures outlined below shall be implemented where they are applicable and feasible. The list shall not be considered all-inclusive, and any other measures to reduce fugitive dust emissions not listed shall be encouraged.</p> <p>a. Land Preparation, Excavation and/or Demolition. The following dust control measures shall be implemented:</p> <ol style="list-style-type: none"> 1. 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. 2. 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. 3. All fine material transported off-site shall be either sufficiently watered or securely covered to prevent excessive dust. 4. Areas disturbed by clearing, earth moving, or excavation activities shall be minimized at all times. 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. 	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> 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: <ul 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 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: <ul style="list-style-type: none"> 1. On-site vehicle speed shall be limited to 15 miles per hour. 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. 	
		<p>MM 4.3-2: Prior to issuance of grading or building permits, the project proponent shall prepare a comprehensive Fugitive Dust Control Plan for review and approval by the San Joaquin Valley Air Pollution Control District and submitted to the Kern County Planning and Natural Resources Department. The Plan shall take into consideration grading</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>and construction schedule, seasonal winds, site-specific wind patterns and conditions to ensure adequate measures are implemented to manage fugitive dust. The Dust Control Plan shall include:</p> <ol style="list-style-type: none"> a. Name(s), address(es), and phone number(s) of person(s) responsible for the preparation, submission, and implementation of the plan. b. Description and location of operation(s). c. Listing of all fugitive dust emissions sources included in the operation. d. 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 Resources Board approved soil stabilizers, and that shall not increase any other environmental impacts including loss of vegetation. 3. All material excavated or graded will be watered to prevent excessive dust. Watering will occur as needed with complete coverage of disturbed areas. The excavated soil piles will be watered as needed to limit dust emissions to less than 20% opacity or covered with temporary coverings. 4. Construction activities that occur on unpaved surfaces will be discontinued during windy conditions when winds exceed 25 miles per hour and those activities cause visible dust plumes that exceed the SJVAPCD 20% opacity standard. 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. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ol style="list-style-type: none"> 6. All hauling materials should be moist while being loaded into dump trucks. 7. All haul trucks hauling soil, sand, and other loose materials on public roads shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions). 8. Soil loads should be kept below 6 inches or the freeboard of the truck. 9. Drop heights when loaders dump soil into trucks shall not exceed 5 feet above the truck. 10. Gate seals should be tight on dump trucks. 11. Traffic speeds on unpaved roads shall be limited to 15 miles per hour. 12. All grading activities shall be suspended when visible dust emissions exceed 20%. 13. Other fugitive dust control measures as necessary to comply with San Joaquin Valley Air Pollution Control District Rules and Regulations. 	
		<p>MM 4.3-3: The proposed project shall continuously comply with the following: The project proponent and/or its contractors shall implement the following measures during construction of the project:</p> <ol style="list-style-type: none"> a. All equipment shall be maintained in accordance with the manufacturer’s specifications. b. Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for extended periods of time. c. Construction equipment shall operate longer than eight cumulative hours per day. d. Electric equipment shall be used whenever possible in lieu of diesel- or gasoline-powered equipment. e. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NO_x emissions. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>f. On-road and off-road diesel equipment shall use diesel particulate filters (or the equivalent) if permitted under manufacturer’s guidelines.</p> <p>g. Tier 3 engines shall be used on all equipment when available.</p> <p>MM 4.3-4: All required landscaping along major and arterial roadways will be designed with native drought-resistant species (plants, trees, and bushes) to reduce demand for gas-powered landscape maintenance equipment.</p> <p>MM 4.3-5: Prior to issuance of any grading or construction permits the Owner/Operator shall enter into a Developer Mitigation Agreement (DMA) with the San Joaquin Valley Air Pollution Control District. The DMA is to mitigate criteria emissions of the warehouse project implementation, not required to be offset under a District rule, and for Project vehicle and all other mobile source emissions. The Owner/operator shall pay fees to fully offset 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) (including as applicable mitigating for reactive organic gases by additive reductions of particulate matter of 10 microns or less in diameter) (collectively, “designated criteria emissions”) to avoid any net increase in these pollutants. The air quality mitigation fee shall further be paid prior to the approval of any construction or grading approval and shall be used to reduce designated criteria emissions to fully offset Project emissions that are not otherwise required to be fully offset by District permit rules and regulations.</p>	
<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 either of the following adopted thresholds:</p>	<p>Potentially Significant</p>	<p>Implementation of Mitigation Measures MM 4.3-1 through MM 4.3-5 would be required.</p>	<p>Less than Significant</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>a. San Joaquin Valley Unified Air Pollution Control District Operational and Area Sources: 10 tons per year for ROG 10 tons per year for NO_x</p> <p>b. 15 tons per year for PM10. Stationary Sources as Determined by District Rules</p> <p>Severe Nonattainment: 25 tons per year</p> <p>Extreme Nonattainment: 10 tons per year</p>	Potentially significant impact	<p>Implementation of Mitigation Measures MM 4.3-1 through MM 4.3-5 would be required.</p> <p>MM 4.3-6: To minimize personnel and public exposure to potential Valley Fever–containing dust on and off site, the following control measures shall be implemented during project construction:</p> <ol style="list-style-type: none"> a. Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved offsite to other work locations. b. Wherever possible, grading and trenching work shall be phased so that earth-moving equipment is working well ahead or downwind of workers on the ground. c. The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area. d. In the event that a water truck runs out of water before dust is sufficiently dampened, ground workers exposed to dust shall leave the area until a truck can resume water spraying. e. To the greatest extent feasible, heavy-duty earth-moving vehicles shall be closed-cab and equipped with a HEPA-filtered air system. f. 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 	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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.</p> <p>g. A Valley Fever informational handout shall be provided to all onsite construction personnel and surrounding residents within 3 miles 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 3 miles 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 for review.</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, no sooner than 15 days prior to construction activities. The notices shall</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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.</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> <ol style="list-style-type: none"> a. Responding to any local complaints about construction activities. The construction coordinator shall determine the cause of the construction complaint and shall be required to implement reasonable measures such that the complaint is resolved. b. Ensuring all appropriate construction notices have been made available to the public and that all appropriate construction signs have been installed. c. Maintaining an ongoing up-to-date log of all construction-related complaints (i.e., blowing dust, inability to access parcels, etc.) during project construction activities. The log shall include the nature of the complaint and the measures that were undertaken to address the concerns. Upon request, the construction coordinator shall provide the log to the Planning and Natural Resources Department no later than three business days from request. 	
<p>Impact 4.3-4: The project would result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.</p>	<p>Less than significant impact</p>	<p>No mitigation would be required.</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.3-1 through MM 4.3-10 would be required.	Significant and unavoidable impact (cumulative impacts)
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 initiation of any site preparation and/or construction activities, the project proponent shall retain a Lead Biologist. The Lead Biologist retained by the project proponent shall only utilize a qualified biologist for all work on reports submitted for any application for project permit. The qualified biologist must have a Bachelor of Science Degree or Bachelor of Arts Degree in biology or related environmental science, have demonstrated familiarity with the natural history, habitat affinities and identification of Covered Species of the San Joaquin Valley and have conducted work in California for at least one (1) year of field level reconnaissance survey work in the San Joaquin Valley. The resume of the biologist preparing any report submitted for permits shall be included in the report. Lack of these specific qualifications will result in immediate rejection of the report without further review. The Lead Biologist will have oversight over implementation of all necessary avoidance and minimization efforts and will have the authority to stop construction activities, if any of the requirements associated with these measures are not being fulfilled. If the biologist has requested work activities stop due to take of any listed species, the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife will be notified within 1 day via email and telephone.</p> <p>MM 4.4-2: Prior to the issuance of grading or building permits and for the duration of construction activities, all new construction workers at the project site shall attend an Environmental Awareness Training and Education Program, developed and presented by the Lead Biologist. For the purposes of this measure, “New” is defined as a construction worker who has not previously worked on the site, has been away from the site for over one year, and/or a construction worker who has not previously completed the Environmental Awareness Training and Education Program. Any employee responsible for the operations and maintenance</p>	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>or decommissioning of the project facilities shall also attend the Environmental Awareness Training and Education Program.</p> <ol style="list-style-type: none"> a. The Training Program shall include, but not be limited to, information on the life history of species (if applicable) including the blunt-nosed leopard lizard, San Joaquin whipsnake, coast horned lizard, burrowing owl, Swainson’s hawk, prairie falcon, Le Conte’s thresher, Nelson’s antelope squirrel, giant kangaroo rat, short-nosed kangaroo rat, Tipton kangaroo rat, Tulare grasshopper mouse, San Joaquin pocket mouse, American badger, nesting birds, and San Joaquin kit fox, as well as other wildlife and plant species that may be encountered during construction activities, their legal protections, the definition of “take” under the Endangered Species Act, measures to protect the species, reporting requirements, specific measures that each worker shall employ to avoid take of wildlife species, and penalties for violation of the Act. b. To ensure employees and contractors understand their roles and responsibilities, training may be conducted in languages other than English. c. An acknowledgement form signed by each worker indicating that Environmental Awareness Training and Education Program has been completed shall be kept on record; d. A sticker shall be placed on hard hats indicating that the worker has completed the Environmental Awareness Training and Education Program. Construction workers shall not be permitted to operate equipment within the construction areas unless they have attended the Environmental Awareness Training and Education Program and are wearing hard hats with the required sticker; e. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the Environmental Awareness Training and Education Program and copies of the signed acknowledgement forms shall be submitted to the Kern County Planning and Natural Resources Department; and, f. The construction crews and contractor(s) shall be responsible for unauthorized impacts from construction activities to sensitive biological resources that are outside the areas defined as subject to impacts by project permits. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> g. An Operation and Maintenance-phase version of the Environmental Awareness Training and Education Program will be maintained on-site for review as may be necessary during the life of the project. h. All vehicles will be directed to exercise caution when commuting within the project area. A 15-mile per hour speed limit will be enforced on unpaved roads. i. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards. j. A litter control program shall be instituted at the project site. All workers shall ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash from the project area are deposited in covered or closed trash containers. The trash containers shall be removed from the project area at the end of each working day. k. No canine or feline pets or firearms (except for federal, state, or local law enforcement officers and security personnel) shall be permitted on construction sites to avoid harassment, killing, or injuring of listed species. l. Maintenance and construction excavations greater than 2 feet deep shall be covered, filled in at the end of each working day, or have earthen escape ramps no greater than 200 feet apart provided to prevent entrapment of listed species. m. 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. n. Because dusk and dawn are often the times when listed species are most actively foraging, all construction activities will cease 0.5 hour before sunset and will not begin prior to 0.5 hour before sunrise. Except when necessary for driver or pedestrian safety, lighting of the project site by artificial lighting during nighttime hours is prohibited. o. Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project site to ensure that special-status species do not get trapped. This limitation will be 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>communicated to the contractor through use of Special Provisions included in the bid solicitation package.</p> <p>p. Use of rodenticides and herbicides at the project site shall be avoided to the maximum extent feasible. If use is unavoidable, rodenticides and/or herbicides shall be utilized in such a manner to prevent primary or secondary poisoning of special-status species and depletion of prey populations on which they depend. All uses of such compounds shall observe labels and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Pesticide Regulation, and other appropriate state and federal regulations as well as additional project-related restrictions deemed necessary by the U.S. Fish and Wildlife Service or California Department of Fish and Wildlife.</p> <p>MM 4.4-3: A pre-construction survey by a qualified biologist or monitor shall be conducted no more than 30 days and no less than 14 days prior to the commencement of any site preparation, ground disturbance, and/or construction activities in previously undisturbed areas of the project site. If any evidence of occupation of that portion of the project site by listed or other special-status plant or animal species is observed, a buffer shall be established by a qualified biologist that results in sufficient avoidance to comply with applicable regulations. If sufficient avoidance cannot be established, the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife shall be contacted for further guidance and consultation on additional measures. The project proponent or operator shall obtain any required permits from the appropriate wildlife agency. Copies of the pre-construction survey and results, as well as all permits and evidence of compliance with applicable regulations, shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>The following buffer distances shall be established prior to commencement of any site preparation and/or construction activities as applicable, if any listed or other special status plant or animal species is observed:</p> <ul style="list-style-type: none"> a. San Joaquin kit fox or American badger potential den: 50 feet; b. San Joaquin kit fox or American badger known den: 100 feet; 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> c. San Joaquin kit fox or American badger pupping den: contact the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife; d. Burrowing owl burrow outside of breeding season: as recommended by the California Department of Fish and Wildlife Staff Report 2012; e. Burrowing owl burrow during breeding season: as recommended by the California Department of Fish and Wildlife Staff Report 2012; f. Swainson’s hawk nest during breeding season: 0.5 mile (if applicable); g. Other protected raptor nests during the breeding season: as recommended by a qualified biologist; h. Other protected nesting migratory bird nests during the breeding season: as recommended by a qualified biologist; and Coast horned lizard, San Joaquin whipsnake, and other special-status wildlife species: as recommended by a qualified biologist. 	
		<p>Buffer zones may be adjusted in consultation with the USFWS and/or CDFW and the lead agency.</p>	
		<p>MM 4.4-4: 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. 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> <ul style="list-style-type: none"> 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 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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,</p> <p>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.</p> <p>MM 4.4-5: 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 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>	

Impact	Level of Significance before Mitigation	Mitigation Measures		Level of Significance after Mitigation
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<u>Location</u>	<u>Time of Year</u>	<u>Level of Disturbance</u>		
		<u>Low</u>	<u>Med</u>	<u>High</u>
<u>Nesting sites</u>	<u>April 1 – Aug 15</u>	200 m*	500 m	500 m
<u>Nesting sites</u>	<u>Aug 16 – Oct 15</u>	200 m*	200 m	500 m
<u>Nesting sites</u>	<u>Oct 16 – Mar 31</u>	50 m	100 m	500 m
<u>*meters (m)</u>				

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.

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:

- 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,

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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 4.4-6: Prior to issuance of grading or 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 daily.</p> <p>MM 4.4-7: Prior to and during construction activities, the project proponent shall ensure the project complies with the following:</p> <p>a. Any pipe, culvert, or similar structure with a diameter of 4 inches or greater, stored on-site for one or more nights shall be inspected to ensure kit foxes or other wildlife have not become entrapped or buried in the pipes. If the pipes, culverts, or similar structures with a diameter of 4 inches or greater are not capped or otherwise covered, they shall be inspected twice daily, in the morning and evening, and prior to burial or closure, to ensure no kit foxes or other wildlife become entrapped or buried in the pipes.</p> <p>b. All food, garbage, and plastic shall be disposed of in closed containers and regularly removed from the site to minimize attracting ranging kit fox, or other wildlife to the site where they may be harmed. All trash shall be removed and disposed of regularly in accordance with state and local laws and regulations.</p> <p>MM 4.4-8: 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</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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.</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 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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.</p> <p>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.</p> <p>MM 4.4-9: 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> <p>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.</p> <p>MM 4.4-10: 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 4.4-11: The measures below shall be implemented throughout construction and operation of the project:</p> <p>a. Project-related vehicles shall observe a 15 mile-per-hour speed limit in all project areas, except on county roads and State and federal highways. Construction after sundown shall be prohibited. Off-road traffic outside of designated project areas shall be prohibited.</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> b. No pets shall be allowed in project areas, except for trained canine animals related to security and operation of the facility. c. All uses of such herbicidal and rodenticide compounds shall observe label and other restrictions mandated by the United States Environmental Protection Agency, California Department of Food and Agriculture, and federal and State legislation as well as additional project-related restrictions deemed necessary by the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service. d. No plants or wildlife shall be collected, taken, or removed from the construction areas or areas of off-site improvements, except as necessary for project-related vegetation removal or wildlife relocation. Salvage of native vegetation to be removed from construction areas is encouraged, but shall only be performed by qualified biologists and with written approval from the California Department of Fish and Wildlife. e. If San Joaquin kit fox known or pupping dens are observed in project areas, the project proponent shall contact the United States Fish and Wildlife Service and California Department of Fish and Wildlife to discuss appropriate actions. 	
<p>Impact 4.4-2: The project could have a substantial adverse effect on any riparian habitat or other sensitive natural community, or jurisdictional waters, identified in local or regional plans, policies, or regulations or by CDFW or USFWS.</p>	<p>No impact</p>	<p>No mitigation would be required.</p>	<p>No impact</p>
<p>Impact 4.4-3: The project would have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.</p>	<p>No impact</p>	<p>No mitigation would be required.</p>	<p>No impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.4-4: The project could 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 native wildlife nursery sites.	Potentially significant impact	Implementation of Mitigation Measures MM 4.4-4 and MM 4.4-10 through 4.4-11 .	Less than significant impact
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	No mitigation would be required.	Less than significant impact
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
Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.4-1 through MM 4.4-11 would be required.	Less than significant impact

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	<p>MM 4.5-1: Prior to initial ground disturbance, or the issuance of grading or building permits, the project applicant shall retain a qualified Lead Archaeologist to carry out all mitigation measures related to archaeological resources.</p> <p>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:</p>	Less than significant impact
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Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> 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 onsite workers who have not participated in earlier Cultural Resources Sensitivity Trainings shall meet provisions specified above. c. The training shall include an overview of potential cultural resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the Lead Archaeologist for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources. d. A copy of the Cultural Resources Sensitivity Training Guide/Materials shall be kept on-site and available for all personnel to review and be familiar with as necessary. It is the responsibility of the Lead Archaeologist to ensure all employees receive appropriate training before commencing work on-site. <p>MM 4.5-2: During implementation of the project, in the event that a paleontological resource is found, the project contractor shall cease ground-disturbing activities within 50 feet of the find. A qualified paleontologist shall be obtained to evaluate the significance of the resource(s) and recommend appropriate treatment measures. Any fossils encountered and recovered shall be catalogued and donated to a public, non- profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository.</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>MM 4.5-3: Prior to the issuance of grading or building 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> <p>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.</p> <p>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.</p> <p>Consistent with Mitigation Measure 4.5-1 (above) 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.</p> <p>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):</p> <ul style="list-style-type: none"> A. a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed; B. sample excavation; C. surface artifact collection; D. site documentation; and, 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>Impact 4.5-2: The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to <i>CEQA Guidelines</i> Section 15064.5.</p>	Potentially significant impact	<p>E. 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.</p> <p>F. 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>	Less than significant impact
<p>Impact 4.5-3: The project would disturb human remains, including those interred outside of formal cemeteries.</p>	Potentially significant impact	<p>MM 4.5-4: 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 CEQA 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 (NAHC), in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by Assembly Bill [AB] 2641). The NAHC shall designate a Most Likely Descendant (MLD) 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 MLD regarding their recommendations, if applicable, taking into account the possibility of multiple human</p>	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		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	
Impact 4.5: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.5-1 through MM 4.5-4 .	Less than significant impact
4.6 Energy			
Impact 4.6-1: The project would not 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, Air Quality).</p> <p>MM 4.6-1: Prior to the issuance of grading or building permits, the project proponent shall provide a report including a summary of all energy efficient building design standards incorporated into the project design to reduce the level of energy consumption of the project. The following list is non-inclusive of potential design standards that may be considered:</p> <ul style="list-style-type: none"> a. 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. Encourage green building measures that contribute to reducing energy use to 25 percent less than Title 24 requirements; b. Solar water heating to provide non-industrial water heating; c. Ground mounted solar photovoltaics arrays to provide a portion of the estimated electrical demand for the proposed project; d. Commercial buildings shall be designed to meet LEED® certification standards; e. Roofs on all buildings shall be of a light color to reduce heat generation; f. Portions of parking lots (drive aisles) may be paved with concrete versus asphalt to reduce initial solar reflectance; g. Depending on the usage, portions of parking lots may be covered, and the parking lot roofs contain solar photovoltaics; 	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> h. Use LED lighting fixtures on all indoor and exterior site lighting; i. Use LED lighting fixtures on all public streets and site lighting; j. Encourage the utilization of electric forklifts and other material handling vehicles to reduce usage of fossil fuels; k. Design circulation features into the public street improvements to include bus stops and/or other public transportation; l. Include bicycle friendly features to reduce vehicle miles traveled and to encourage non-vehicular transportation; m. Encourage the usage of high efficiency electric motors for industrial uses. <p>MM 4.6-2: Prior to the issuance of grading or 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 electrical vehicle capable spaces with electrical vehicle supply equipment.</p>	
Impact 4.6-2: The project would not conflict with or obstruct a State or local plan for renewable energy or energy efficiency.	Less than significant impact	No mitigation would be required.	Less than significant impact
Impact 4.6: Cumulative Impacts	Less than significant impact	Implement Mitigation Measures MM 4.3-3 (see Section 4.3, Air Quality), MM 4.6-1 and MM 4.6-2 .	Less than significant impact
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-	Less than significant impact	No mitigation would be required.	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>Priolo earthquake fault zoning map issued by the State Geologist for the area or based on other substantial evidence of a known fault.</p>	<p>Potentially significant impact</p>	<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 building or 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"> 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 	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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.</p> <p>g. The Kern County Public Works Department shall evaluate any final facility siting design developed prior to the issuance of any building or grading permits to verify that geological constraints have been avoided.</p> <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> <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</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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>	
<p>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.</p>	<p>Less than significant impact</p>	<p>No mitigation would be required.</p>	<p>Less than significant impact</p>
<p>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.</p>	<p>No impact</p>	<p>No mitigation would be required.</p>	<p>No impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>Impact 4.7-5: The project would directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: substantial soil erosion or the loss of topsoil.</p>	<p>Potentially significant impact</p>	<p>Implement Mitigation Measure MM 4.10-1 (See Section 4.10, Hydrology and Water Quality), 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. The Soil Erosion and Sedimentation Control Plan shall include, but is not limited to, the following:</p> <ol style="list-style-type: none"> 1. 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); 2. Sediment collection facilities as may be required by the Kern County Public Works Department; 3. A timetable for full implementation, estimated costs, and a surety bond or other security as approved by the County; and 4. Other measures required by the County during permitting, including long-term monitoring (post-construction) of erosion control measures until site stabilization is achieved. <p>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.</p>	<p>Less than significant impact</p>
<p>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 off-site landslide, lateral</p>	<p>Less than significant impact</p>	<p>No mitigation would be required.</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
spreading, subsidence, liquefaction, or collapse.			
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
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.	Potentially significant impact	MM 4.7-9: Prior to the issuance of permits, the project proponent shall provide evidence to the Kern County Planning and Natural Resources Department that the siting, design and construction of proposed septic system(s) and leach field disposal system(s) comply with the 2016 Kern County On-site Systems Manual as authorized by the California Water Board Local Agency Management Program (LAMP) and administered locally by the Kern County Environmental Health Services Department (KCEHS). Proving the proposed septic design plans comply with these requirements will ensure that all standards for septic tanks, seepage pits, and soils are capable of adequately supporting the use of septic tanks. The project proponent shall provide evidence of concurrence/approval of the final design from Kern County Environmental Health Services Department.	Less than significant 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 4.7-10: Prior to the issuance of grading or building 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 	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Training Guide shall be submitted to the Kern County Planning and Natural Resources Department. The training guide may be presented in video form.</p> <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 4.7-11: 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. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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.</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 4.7-12: 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 4.7-12 would be required.	Less than significant impact
4.8 Greenhouse Gas Emissions			
Impact 4.8-1: The project would generate greenhouse gas emissions, either directly or indirectly, that may	Potentially significant impact	Implement Mitigation Measure MM 4.17-2 (see Section 4.17, Transportation and Traffic.)	Significant and unavoidable impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
have a significant impact on the environment.		<p>MM 4.8-1: Only electric-powered off-road equipment (e.g., forklifts, indoor material handling equipment, etc.) shall be utilized on-site for daily warehouse and business operations. The project developer/facility owner shall disclose this requirement to all tenants/business entities prior to the signing of any lease agreement. In addition, the limitation on using only electric-powered off-road equipment shall be included in all leasing agreements.</p> <p>MM-4.8-2: The warehouse usage would be limited to dry storage. If the warehouse is used for cold storage uses, then prior to the issuance of occupancy permits, the Planning Department shall confirm that tenant lease agreements include contractual language that requires all Transport Refrigeration Units (TRUs) entering the project site be plug-in capable. Building systems should 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.</p>	
Impact 4.8-2: The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gas.	Potentially significant impact	Implement Mitigation Measures MM 4.17-2 (see Section 4.17, Transportation and Traffic), MM 4.8-1 , and MM 4.8-2 .	Significant and unavoidable impact
Impact 4.8: Cumulative Impacts	Potentially significant impact	Implement Mitigation Measures MM 4.17-2 (see Section 4.17, Transportation and Traffic), MM 4.8-1 , and MM 4.8-2 .	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>Implementation of Mitigation Measure MM 4.19-9 is required (see Section 4.19, Utilities and System Services, for full condition of approval text).</p> <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</p>	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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: During the life of the project, including decommissioning, the project operator shall prepare and maintain a Hazardous Materials Business Plan, as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 and in accordance with Kern County Ordinance Code 8.04.030, by submitting all the required information to the California Environmental Reporting System at http://cers.calepa.ca.gov/ for review and acceptance by the Kern County Environmental Health Services Department/Hazardous Materials Section. The Hazardous Materials Business Plan shall:</p> <ol style="list-style-type: none"> a. Delineate hazardous material and hazardous waste storage areas b. Describe proper handling, storage, transport, and disposal techniques c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction and operation e. Establish public and agency notification procedures for spills and other emergencies including fires f. Include procedures to avoid or minimize dust from existing residual pesticides and herbicides that may be present on the site <p>The project proponent shall ensure that all contractors working on the project are familiar with the facility’s Hazardous Materials Business Plan as well as ensure that one copy is available at the project site at all times. In</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>Impact 4.9-2: The project would create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.</p>	<p>Potentially significant impact</p>	<p>addition, a copy of the accepted Hazardous Materials Business Plan from California Environmental Reporting System shall be submitted to the Kern County Planning and Natural Resources Department for inclusion in the projects permanent record.</p> <hr/> <p>Implementation of Mitigation Measures MM 4.9-1 through MM 4.9-3, as provided above, and MM 4.7-8 would be required (see Section 4.7, <i>Geology and Soils</i>, for full mitigation measure text).</p> <p>MM 4.9-4: The Project proponents 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> <ol 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: Prior to issuance of the grading permit, a qualified hazardous materials specialist shall inspect each power pole on-site with a transformer. Those containing polychlorinated biphenyls shall be removed by the hazardous specialist and disposed of at an appropriate hazardous materials disposal site to the satisfaction of Department of Toxic Substances Control. The hazardous materials specialist shall provide a short report to the Kern County Planning and Natural Resources Department and the Kern County Environmental Health Services Division/Hazardous Materials Section for review and approval.</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>Prior to construction, Pacific Gas and Electric Company (PG&E) shall be contacted regarding the disposition of pole-mounted transformers. In the event of a future release or leak of insulating fluids from any of the pole-mounted transformers, PG&E shall be contacted for their removal or replacement.</p> <p>MM 4.9-6: Prior to start of construction, the abandoned petroleum prospect well shall be located, exposed, and re-abandoned, if required, to conform to the current abandonment requirements of the California Department of Conservation, Division of Oil, Gas and Geothermal Resources and the Kern County Department of Environmental Health Services.</p> <p>MM 4.9-7: The following note shall appear on all final maps and grading plans: <i>If during grading or construction, any plugged and abandoned or unrecorded wells are uncovered or damaged, the Department of Oil, Gas and Geothermal Resources will be contacted to inspect and approve any remediation required.</i></p> <p>MM 4.9-8: 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 invalid 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> <p>MM 4.9-9: If a rupturing of a pipeline should occur during excavation and construction activities the Kern County Fire Department and Pacific Gas and Electric Company should be contacted immediately. Natural gas transmission pipeline rupture most often indicated an emergency situation and 9-1-1 should be dialed. If an emergency is not indicated, the Kern County Fire Department Greenfield Station 52, located at 312 Taft Highway, should be contacted at (661) 834-5144. Non- Emergency telephone numbers for the Kern County Fire Department number (661)</p>	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>324-6551 and the project proponent shall follow all safety and cleanup regulations.</p> <p>MM 4.9-10: If the on-site water wells are not to be used for irrigation or industrial purposes, they 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.</p> <p>MM 4.9-11: The project applicant/operator shall continuously comply with the following:</p> <ol style="list-style-type: none"> a. The construction contractor or project personnel shall use herbicides that are approved 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. b. Herbicides shall be mixed and applied in conformance with the manufacturer’s directions. c. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and 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. d. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed; and herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water. e. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated. f. A written record of all herbicide applications on the site, including dates and amounts, shall be furnished annually to the Kern County Planning and Natural Resources Department. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>MM 4.9-12: If asbestos containing materials are identified during construction (particularly in the concrete irrigation (transite) pipe located on-site, then 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.</p>	
<p>Impact 4.9-3: The project would emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school.</p>	<p>No impact</p>	<p>No mitigation would be required.</p>	<p>No impact</p>
<p>Impact 4.9-4: The project would be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.</p>	<p>No impact</p>	<p>No mitigation would be required.</p>	<p>No impact</p>
<p>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.</p>	<p>No impact</p>	<p>No mitigation would be required.</p>	<p>No impact</p>
<p>Impact 4.9-6: The project would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.</p>	<p>Less than significant impact</p>	<p>Implementation of Mitigation Measure MM 4.17-3 (see Section 4.17, Transportation) and</p> <p>MM 4.9-13: Prior to the issuance of grading or building permits, the proponent shall develop and implement a Fire Safety Plan for use construction and operation.</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>The project proponent shall submit the plan, along with maps of the project and access roads, to the Kern County Fire Department for review and approval. The Fire Safety Plan shall contain notification procedures and emergency precautions, including, but not limited to, the following:</p> <ol style="list-style-type: none"> a. All internal combustion engines, both stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order. b. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. These vehicle types 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. 	
<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.</p>	<p>Potentially significant impact</p>	<p>Implementation of Mitigation Measures MM 4.9-13 and MM 4.15-1 (see Section 4.15, Public Services) would be required.</p>	<p>Less than significant impact</p>
<p>Impact 4.9-8: The project would generate vectors (flies, mosquitoes, rodents, etc.) or have a component that includes agricultural waste. Specifically,</p>	<p>Potentially Significant Impact</p>	<p>MM 4.9-14: Prior to issuance of a grading or building permit, a Maintenance, Trash Abatement, and Pest Management Program shall be submitted for review and approval to the Kern County Planning and</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>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 the vectors:</p> <ul style="list-style-type: none"> i. Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; or ii. Are associated with design, layout, and management of project operations; or iii. Disseminate widely from the property; or iv. Cause detrimental effects on the public health or well-being of the majority of the surrounding population. 		<p>Natural Resources Department. The program shall include, but not be limited to the following:</p> <ul style="list-style-type: none"> a. The project applicant shall clear debris from the project area at least four times per year; this can be done in conjunction with regular panel washing and site maintenance activities. b. The project applicant shall erect signs with contact information for the project proponent/operator’s maintenance staff at regular intervals along the site boundary, as required by the Kern County Planning and Natural Resources Department. Maintenance staff shall respond within two weeks to resident requests for additional cleanup of debris. Correspondence with such requests and responses shall be submitted to the Kern County Planning and Natural Resources Department. c. The project applicant shall implement a regular trash removal and recycling program on an ongoing basis during construction and operation of the project. Barriers to prevent pest/rodent access to food waste receptacles shall be implemented. Locations of all trash receptacles during operation of the project shall be shown on final plans. d. Trash and food items shall be contained in closed containers to be locked at the end of the day and removed at least once per week to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs. <p>MM 4.9-15: Prior to the issuance of grading or 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.</p>	
Impact 4.9: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.7-8, MM 4.9-1 through MM 4.9-15, MM 4.15-1, MM 4.17-3, and MM 4.19-2 would be required. be required (see Section 4.7, Geology and Soils; Section 4.9, Hazards and	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p><i>Hazardous Materials; Section 4.15, Public Services; Section 4.17, Transportation; and Section 4.19, Utilities and Service Systems, respectively, for full mitigation measure text).</i></p>			
<p>4.10 Hydrology and Water Quality</p>			
<p>Impact 4.10-1: The project would violate water quality standards or waste discharge requirements, or otherwise degrade surface or groundwater water quality.</p>	<p>Potentially significant impact</p>	<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 construction contracts. Recommended best management practices to be incorporated in the Stormwater Pollution Prevention Plan shall include the following:</p> <ol 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; and g. Appropriate disposal of demolition debris, concrete and soil, and aggressively controlling litter. 	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> 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 hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following:</p> <ul style="list-style-type: none"> a. A numerical stormwater model for the project site that evaluates existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event. b. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation. c. Engineering recommendations to be incorporated into the project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding onsite or offsite. d. The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards, and approved by the Kern County Public Works Department prior to the issuance of grading permits. 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>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.</p>	<p>Less than significant impact</p>	<p>Implementation of Mitigation Measure MM 4.19-7 and MM 4.19-8 (see Section 4.19, Utilities and Service Systems) would be required.</p>	<p>Less than significant impact</p>
<p>Impact 4.10-3: The project would substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would result in substantial erosion and/or sedimentation on-site or off-site.</p>	<p>Potentially significant impact</p>	<p>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 would be required.</p>	<p>Less than significant impact</p>
<p>Impact 4.10-4: The project would substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site.</p>	<p>Less than significant impact</p>	<p>Implementation of Mitigation Measure MM 4.10-2 would be required.</p>	<p>Less than significant impact</p>
<p>Impact 4.10-5: The project 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.</p>	<p>Less than significant impact</p>	<p>Implementation of Mitigation Measure MM 4.10-2 would be required.</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.10-6: The project would place within a 100-year flood hazard area structures that would impede or redirect flood flows.	Less than significant impact	No mitigation would be required	Less than significant impact
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
Impact 4.10: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.7-8 (see Section 4.7 , <i>Significant and Geology and Soils</i>) and MM 4.9-3 (see Section 4.9 , <i>Hazards and Hazardous Materials</i>), MM 4.10-1 , MM 4.10-2 , MM 4.19-7 , and MM 4.19-8 (see Section 4.19 , <i>Utilities and Service Systems</i>) would be required.	Significant and Unavoidable (Water Supply)
4.11 Land Use and Planning			
Impact 4.11-1: The project would cause a significant environmental impact due to physically dividing an established community.	Less than significant impact	No mitigation would be required.	Less than significant impact
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	No mitigation would be required.	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.11: Cumulative Impacts	Less than significant impact	No mitigation would be required.	Less than significant impact
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
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
Impact 4.12-3: Cumulative Impacts	Less than significant impact	No mitigation would be required.	Less than significant impact
4.13 Noise			
Impact 4.13-1: The project would not 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.	Potentially significant impact	<p>MM 4.13-1: The following measures are required to reduce short-term noise levels associated with project construction:</p> <ol style="list-style-type: none"> 1. 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. 2. 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 	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>at least 500 feet of existing residential dwellings.</p> <ol style="list-style-type: none"> 3. 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. 4. 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). 5. On-site vehicle speeds shall be limited to 15 miles per hour, or less (except incases of emergency). 6. 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. <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"> 1. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. <p>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> <p>MM 4.13-3: The following notes shall be placed on all grading and building permits issued for the project site:</p> <ol style="list-style-type: none"> a. “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 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible.” b. “During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.” c. “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.”	
Impact 4.13-2: The project would not generate excessive groundborne vibration or groundborne noise levels.	Less than significant impact	No mitigation would be required.	Less than significant impact
Impact 4.13-3: The project would not result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.	Less than significant impact	No mitigation would be required.	Less than significant impact
Impact 4.13-4: The project is not located within the Kern County Airport Land Use Compatibility Plan and would not expose people residing or working in the area to excessive noise levels.	Less than significant impact	No mitigation would be required.	Less than significant impact
Impact 4.13: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.13-1 through MM 4.13-3 would be required.	Less than significant impact
4.14 Population and Housing			
Impact 4.14-1: The project would not induce Substantial Unplanned Population Growth in an Area, Either Directly (For	Less than significant impact	No mitigation would be required.	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Example, by Proposing New Homes and Businesses) or Indirectly (For Example, through Extension of Roads or Other Infrastructure).			
Impact 4.14-2: The project would not displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere.	No impact	No mitigation would be required.	No impact
Impact 4.14-3: The project would not displace substantial numbers of people, 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	No mitigation would be required.	Less than significant impact
4.15 Public Services			
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, law enforcement protection and law enforcement services, schools, parks, or other public facilities.	Potentially significant impact (fire facilities)	<p>Implement Mitigation Measures MM 4.9-13 (see Section 4.9, Hazards and Hazardous Materials) and</p> <p>MM 4.15-1: Prior to the issuance of grading or building permits, the project proponent shall develop and implement a Fire Safety Plan for use during construction and operation. The project proponent will submit the Fire Safety 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 will contain notification procedures and emergency fire precautions for construction and operations phases of the proposed project.</p> <p>MM 4.15-2: 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</p>	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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 4.15-3: Prior to the issuance of any building permits on the property, the project operator shall submit a letter detailing the hiring efforts prior to commencement of construction, which encourages all contractors of the project site to hire at least 50 percent of their workers from local Kern County communities. The project operator shall provide the contractors a list of training programs that provide skilled workers and shall require the contractor to advertise locally for available jobs, notifying the training programs of job availability, all in conjunction with normal hiring practices of the contractor.</p>	
Impact 4.15: Cumulative Impacts	Potentially significant impact (fire services)	Implementation of Mitigation Measures MM 4.9-13 (see Section 4.9, Hazards and Hazardous Materials), and MM 4.15-1 through MM 4.15-3 would be required.	Less than significant impact
4.16 Recreation			
Impact 4.16-1: The project would not result in increased 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
Impact 4.16-2: The project would not include recreational facilities or require construction or expansion of recreational facilities that might have an adverse physical effect on the environment.	No impact	No mitigation would be required.	No impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
Impact 4.16: Cumulative Impacts	Less than significant impact	No mitigation would be required.	Less than significant impact
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, as follows: Metropolitan Bakersfield General Plan LOS “C.”	Potentially significant impact	<p>MM 4.17-1: Prior to Certificate of Occupancy, the project site shall be improved with the following features:</p> <p>a. Intersection No. 6 (Houghton Road / Union Avenue) shall be improved with the following features:</p> <ol style="list-style-type: none"> 1. Northbound: Modify raised median to provide left-turn pocket, thru lane and thru/right-turn lane; 2. Southbound: Existing left-turn pocket (140 feet), thru lane and thru/right-turn lane; 3. Eastbound: Existing shared left-turn/thru/right-turn lane; 4. Westbound: Existing shared left-turn/thru lane and right-turn pocket (100-feet); and 5. Signalize intersection, providing Northbound/Southbound protected left-turn phasing and Eastbound/Westbound permissive phasing. 	Less than significant impact
Impact 4.17-2: The project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).	Potentially significant impact	<p>MM 4.17-2: 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> <p>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.</p>	Significant and unavoidable impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> 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 & 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. 	
<p>Impact 4.17-3: The project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).</p>	<p>Less than significant impact</p>	<p>MM 4.17-3: 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; 	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<ul style="list-style-type: none"> 3. Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic; 4. 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. <ul 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. e. Within 30 days of completion of construction, the project proponent/operator shall submit a post-construction video log and 	

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		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.	Less than significant impact	Implement Mitigation Measure MM 4.17-3.	Less than significant impact
Impact 4.17: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.17-1 through MM 4.17-3.	Significant and unavoidable impact (VMT)
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
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	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

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>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.</p>			
Impact 4.18: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measure 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
4.19 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: All special equipment for the proposed project, such as package treatment plants, their appurtenances, and their effluent disposal areas and methods shall be designed, located, and constructed in coordination with the Kern County Public Works Department, so as to preclude contamination, pollution, nuisance, and structural and mechanical instability.</p> <p>MM 4.19-2: Proposals and plans for package treatment and disposal facilities shall be subject to the review and approval of:</p> <ol style="list-style-type: none"> 1. The State and County Environmental Health Services Departments for design and contamination aspects; 2. The Regional Water Quality Control Board for elements of pollution and nuisance; and 3. The Kern County Public Works Department for 	Less than significant impact

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>structural and mechanical integrity. Special structures, such as pump stations, pressure lines and sags, etc. shall be subject to the approval of the Kern County Public Works Department and the maintaining District.</p> <p>MM 4.19-3: The new wastewater package plant facility shall be constructed according to State specifications, with coordination of Kern County Public Works and Kern County Environmental Health Services Departments and shall be operated in such a way as to not contaminate the underlying unconfined aquifer.</p> <p>MM 4.19-4: All facilities of the water system shall be designed and constructed to comply with Kern County Development Standards and approved by the Kern County Public Works Department.</p> <p>MM 4.19-5: 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.</p> <p>MM 4.19-6: 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 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 PG&E to fully mitigate impacts to natural gas services and facilities, as needed as Project construction progresses.</p>	
<p>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.</p>	<p>Less than significant impact</p>	<p>MM 4.19-7 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</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
		<p>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 4.19-8: 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>	
<p>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.</p>	<p>No impact</p>	<p>No mitigation would be required.</p>	<p>No impact</p>
<p>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.</p>	<p>Less than significant impact</p>	<p>MM 4.19-9: 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 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. 	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance after Mitigation
<p>Impact 4.19-5: The project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.</p>	<p>Less than significant impact</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>	<p>Less than significant impact</p>
<p>Impact 4.19: Cumulative Impacts</p>	<p>Potentially significant impact</p>	<p>Implementation of Mitigation Measure MM 4.19-9 would be required.</p>	<p>Less than significant impact (Wastewater, Storm Drainage, Solid Waste, Landfills, Electricity, Natural Gas, Telecommunications)</p> <p>Significant and Unavoidable (Water Supply)</p>
<p>4.20 Wildfire</p>			
<p>Impact 4.20-1: The project would substantially impair an adopted emergency response plan or emergency evacuation plan.</p>	<p>Less than significant impact</p>	<p>No mitigation would be required.</p>	<p>Less than significant impact</p>

Impact	Level of Significance before Mitigation	Mitigation Measures	Level of Significance 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.	Potentially significant impact	Implementation of Mitigation Measures MM 4.9-13 (see Section 4.9, Hazards and Hazardous Materials) and MM 4.15-1 (Section 4.15, Public Services) would be required.	Less than significant impact
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 4.9-13 (see Section 4.9, Hazards and Hazardous Materials) and MM 4.15-1 (Section 4.15, Public Services) would be required.	Less than significant impact
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 instability, or drainage changes.	Potentially significant impact	Implementation of Mitigation Measures MM 4.7-8 (see Section 4.7, Geology and Soils), MM 4.10-1 , and MM 4.10-2 (Section 4.10, Hydrology and Water Quality) would be required.	Less than significant impact
Impact 4.20: Cumulative Impacts	Potentially significant impact	Implementation of Mitigation Measures MM 4.7-8 (see Section 4.7, Geology and Soils), MM 4.9-13 (see Section 4.9, Hazards and Hazardous Materials), MM 4.10-1 , MM 4.10-2 (see Section 4.10, Hydrology and Water Quality), and MM 4.15-1 (see Section 4.15, Public Services) would be required.	Less than significant impact

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Chapter 2

Introduction

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2.1 Intent of the California Environmental Quality Act

The Kern County Planning Commission and Board of Supervisors (Kern County or County), as lead agency, has determined that an Environmental Impact Report (EIR) must be prepared for the proposed Westside Industrial Project (proposed project).

The proposed project is located on 93.74 acres of land and includes the development of a 50-foot-high, 653,442-square-foot single-story warehouse distribution facility and associated improvements. The proposed project would have a footprint of approximately 629,186 square feet, including approximately 44,424 square feet of office space. Additionally, the project would include a 24,256 square-foot mezzanine that would contain only material handling equipment conveyors with occasional maintenance and no storage. The proposed project would include two guardhouses, one pumphouse, 135 truck dock trailer parking spaces, 702 truck trailer spaces, and 1,000 automobile spaces, including 200 electric vehicle charging stations and 22 Americans with Disabilities Act (ADA) accessible spaces.

This Draft EIR has been prepared pursuant to the following:

- The California Environmental Quality Act (CEQA) (Public Resources Code [PRC] § 21000 *et seq.*).
- CEQA Guidelines (California Code of Regulations [CCR] Title 14, Chapter 3, § 15000 *et seq.*).
- The Kern County CEQA Implementation Document.

The overall purposes of the CEQA process are to:

- Provide for 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 (e.g., wildlife, 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 Draft EIR

An EIR is a public informational document used in the planning and decision-making process. This Draft EIR will analyze the environmental impacts of the proposed project. The Kern County Planning Commission and Board of Supervisors will consider the information in the Draft EIR, including the public comments and staff response to those comments, during the public hearing process. The final decision is made by the Kern County Board of Supervisors, who may approve, conditionally approve, or deny the project. The purpose of an EIR is to identify:

- The significant potential impacts of the project on the environment and indicate the manner in which those significant impacts can be avoided or mitigated;
- Any unavoidable adverse impacts that cannot be mitigated; and

- 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 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 the proposed 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 the project, while still attaining most of the basic objectives of the proposed project.

2.2.1 Areas of 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 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***:

- Impacts related to agriculture
- Impacts related to air quality
- Impacts to biological resources
- Impacts to cultural resources (archaeological resources)
- Impacts related to greenhouse gas (GHG) emissions
- Impacts related to hydrology and water quality
- Impacts related to mineral resources
- Impacts related to noise
- Impacts related to public services (schools)
- Impacts related to traffic
- Impacts related to tribal cultural resources

2.2.2 Issues to be Resolved

CEQA Guidelines Section 15123(b)(3) requires that an EIR contain issues to be resolved, which includes the choices among alternatives and whether or how to mitigate significant impacts. The following major issues are to be resolved regarding the proposed project:

- Determine whether the Draft EIR adequately describes the environmental impacts of the proposed project.
- Determine 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 proposed project.

2.3 Terminology

To assist reviewers in understanding this Draft EIR, the following terms are defined:

- *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* refers to the physical conditions that exist in the area and that would be affected by a project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historical or aesthetic significance. The area involved is where significant direct or indirect impacts would occur as a result of the project. The environment includes both natural and man-made (artificial) conditions.
- *Impacts* analyzed under CEQA Guidelines 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.
 - Indirect or secondary impacts that would be caused by the project and would be later in time or farther removed in distance, but would still be 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; and related effects on air and 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 area 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 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 that avoid or substantially reduce the project's significant environmental impacts by:
 - Avoiding the impact 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 action.
 - Compensating for the impact by replacing or providing substitute resources or environments.
- *Cumulative impacts* are two or more individual impacts that, when considered together, are considerable or that 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.
 - An EIR need not discuss cumulative impacts that do not result in part from the project.

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 and the Planning Commission, 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, in this case Kern County and the Planning Commission, 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 steps constitute the process for public participation in the decision-making process:

- **Initial Study/Notice of Preparation (IS/NOP).** Kern County prepared and circulated an IS/NOP for 30 days to responsible, trustee, and local agencies for review and comment beginning on October 17, 2023, and ending on November 16, 2023.
- **Draft EIR Preparation/Notice of Completion (NOC).** A 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 CEQA Guidelines Section 15105, 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 Draft EIR a minimum of 10 business days before the scheduled Planning Commission hearing on the Final EIR and proposed project.
- **Preparation and Certification of Final EIR.** The Kern County Planning Commission will consider the Final EIR and the project, acting in an advisory capacity to the Kern County Board of Supervisors. Upon receipt of the Planning Commission's recommendation, the Board of Supervisors will also consider the Final EIR, all public comments, and take final action on the project. At least one public hearing will be held by both the Planning Commission and 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/Notice of Preparation

Pursuant to CEQA Guidelines Section 15082, as amended, the Kern County Planning and Natural Resources Department circulated an IS/NOP to the State Clearinghouse, public agencies, special districts, and members of the public for a public review period beginning October 17, 2023, and ending on November 16, 2023. The IS/NOP was also posted in the Kern County Clerk's office for 30 days and sent to the State Clearinghouse at the Governor's Office of Planning and Research to solicit Statewide agency participation in determining the scope of the EIR.

The purpose of the IS/NOP is to formally convey that the Kern County Planning and Natural Resources Department, as the lead agency, solicited input regarding the scope and proposed content of the Draft EIR. The IS/NOP and all comment letters are provided in Appendix A of this Draft EIR.

2.4.2 Scoping Meeting

Pursuant to CEQA Guidelines Section 15082(c)(1), 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 November 8, 2023, at the Kern County Public Services Building, located at 2700 "M" Street, Bakersfield, California.

Initial Study/Notice of Preparation and Scoping Meeting Results

Specific environmental concerns raised in written comments received during the IS/NOP public review period are discussed below. The IS/NOP and all comments received are included in Appendix A.

Written and verbal comments received prior to and during the scoping meeting included the project's need to hire from the local labor union and how such hiring efforts are associated with a reduction of air quality impacts. Written comments received in response to the NOP also raised concerns related to the proposed project's proximity to nearby residences and anticipated high volumes of truck traffic, concerns related to the on-site batch plant remaining on-site indefinitely, and the proposed wastewater treatment plant affecting property values due to the proximity to sewer water.

NOP Written Comments

The following specific environmental concerns listed in **Table 2-1, Summary of IS/NOP Comments**, were received in writing by the County in response to the IS/NOP. Four late letters were received after the close of the comment period. Consistent with Public Resources Code Section 21080.4 and State CEQA Guidelines Sections 15082(b) and 15103, comments received after the NOP period do not require a written response. However, the comment letters have been included herein and significant environmental comments have been addressed for informational purposes.

TABLE 2-1: SUMMARY OF IS/NOP COMMENTS

Commenter/Date	Summary of Comment
State Agencies	
California Department of Transportation (Caltrans) September 27, 2023	The commenter states that trips generated by the proposed project will immediately impact the local surroundings as well as the State Route (SR) 99 and Houghton Road Interchange. The commenter requests that a Traffic Impact Study (TIS) be completed and submitted for review. The commenter includes requirements that are to be included in the TIS, as well as recommendations and requirements for the design and operation of the proposed project.
Native American Heritage Commission October 24, 2023	The commenter states that the project should comply with Senate Bill (SB) 18 and Assembly Bill (AB) 52, and includes some of the guidelines for AB 52 and SB 18. The commenter also provides recommendations for Cultural Resources Assessments, including contacting the appropriate regional California Historical Research Information System (CHRIS) Center for an archaeological records search, requirements for an archaeological inventory survey (if required) contact the Native American Heritage Commission (NAHC), and requirements for the inadvertent discovery of archaeological resources, the disposition of recovered cultural items, and inadvertent discovery of Native American human remains.
California Department of Justice – Bureau of Environmental Justice October 26, 2023	The commenter acknowledges the proposed warehouse and logistics facility being an important component of our modern economy but can introduce various environmental impacts to the communities in which it's located. The commenter states that conflicts between warehouses and sensitive receptors must be avoided and mitigated. The commenter states that the proposed project should seek to reduce its total GHG emissions as well. The commenter offers further aid in preparing the EIR including a detailed attachment with examples of proactive planning, community engagement and logistics-facility related mitigation measures
California Department of Conservation Division of Land Resources Protection November 16, 2023	The commenter acknowledge the proposed project would result in the conversion of agricultural resources to non-agricultural uses, and proposes suggested topics of discussion, including type, amount and location of farmland conversion, potential impacts on any current and future agricultural operations in the vicinity; and, incremental impacts leading to cumulative impacts on agricultural land. The commenter includes suggested mitigation methods to reduce impacts to agricultural land loss and conversion.

Commenter/Date	Summary of Comment
California Department of Conservation - Geologic Energy Management Division November 16, 2023	<p>The commenter summarizes the Public Resources Code regarding plugged and abandoned wells, as well as the history of wells on the project site. The commenter provides recommendations against building over or impeding access to wells, in support of testing for liquid and gas leakage, and in support of disposing of soils containing hydrocarbons found on-site. The commenter describes the powers and authorities of California Department of Conservation Geologic Energy Management (CalGEM) in regard to the management of wells during development, and states that CalGEM must be notified if any wells are encountered during development that were not part of the comment.</p> <p>The comment states that two proposed wells were canceled and are not projected to be built or have future access impeded by the proposed project.</p>
Local	
County of Kern Public Works Department October 25, 2023	<p>The commenter states that runoff of stormwater from the site would be increased due to the increase in impervious surfaces generated by the proposed project, and requests that the following be included as a Condition of Approval for the proposed project:</p> <p>The applicant shall provide a plan for the disposal of drainage waters originating on-site and from adjacent road right-of-way (if required), subject to approval of the Public Works Department, per Kern County Development Standards.</p>
Kern County Superintendent of Schools October 27, 2023	<p>The commenter states that the proposed project may have significant effects on either General Shafter or Kern High School Districts. Furthermore, mitigation of the proposed project's impacts on public school facilities would be limited to the payment of statutory fees under Education Code Section 17620 and Government Code Sections 65996 <i>et. seq.</i> when building permits are issued. The commenter states that current fees are set at \$0.78 per square-foot of new commercial/industrial construction.</p>
Kern Audubon Society November 7, 2023	<p>The commenter states that a biological resources survey must be conducted by a qualified biologist at the project site. The commenter requests the survey be conducted during the appropriate time of year under normal rainfall conditions.</p>

Commenter/Date	Summary of Comment
Interested Parties	
<p>Mitchell M. Tsai on behalf of Southwest Regional Council of Carpenters November 7, 2023</p>	<p>The commenter requests to receive any and all notices related to the project under CEQA.</p> <p>The commenter states that the use of local hires and skilled and trained workforce requirements can be helpful in reducing environmental impacts, including air quality, Vehicle Miles Traveled (VMT) and GHG emissions.</p> <p>The commenter requests that the County consider utilizing local skilled and trained workforce policies to reduce such impacts.</p> <p>The commenter also requests that the County require safe construction site work practices at the project site to mitigate public health risks and the spread of COVID-19 and other infectious diseases.</p>
<p>Oralia De La Garza November 8, 2023</p>	<p>The commenter is a resident of 13900 South H Street attended the Scoping meeting and submitted a physical comment letter. The commenter expressed opposition to the proposed project and discussed concerns regarding high volumes of truck traffic, the proposed temporary concrete batch plant potentially remaining on-site indefinitely, and the proposed wastewater treatment facility affecting property values due to proximity to sewer water.</p>
<p>John Borba November 10, 2023</p>	<p>The commenter is a nearby resident and attended the Scoping meeting, submitting this formal comment letter stating their opposition to the proposed project on the ground of concerns about impacts to traffic, noise, air quality, odors, light and glare, and agricultural resources.</p>
<p>Californians Allied for a Responsible Economy (CARE CA) November 16, 2023</p>	<p>The commenter provides background on the purposes of CEQA, and states that the Draft EIR must clearly articulate and quantify all uses associated with the proposed project so as to ensure that unique impacts can be fully evaluated. The commenter states that the lead agency must make all efforts to minimize air quality effects to the maximum extent possible. The commenter also urges the lead agency to adopt quantitative GHG thresholds and provide a detailed discussion on how the proposed project would offset them.</p>
Late Letters	
<p>San Joaquin Valley Air Pollution Control District November 27, 2023</p>	<p>The commenter states that the potential emissions resulting from construction and operation of the proposed project may exceed thresholds set by the District and provides recommendations for analysis. The commenter requests the preparation of a Health Risk Assessment (HRA) and ambient air quality analysis, and includes recommendations for industrial/warehouse emissions reduction strategies. The commenter summarizes several rules and regulations, including District Rule 2010, Rule 2201, Rule 9510, Rule 9410, Rul 4601, Regulation VIII, and Rule 4641.</p>

Commenter/Date	Summary of Comment
California Department of Fish and Wildlife December 1, 2023	<p>The commenter states that the California Department of Fish and Wildlife (CDFW) is California’s Trustee Agency for fish and wildlife resources, as well as a Responsible Agency under CEQA.</p> <p>The commenter states that CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds.</p> <p>The commenter states that there are special-status species that may be present at the site, and CDFW is concerned regarding impacts to special-status species including, but not limited to, Swainson’s hawk, Crotch’s bumblebee, burrowing owl, western spadefoot, and American badger.</p> <p>The commenter recommends that a qualified biologist perform database and other research of the project area, then conduct focused habitat assessments and/or focused biological surveys during the appropriate survey period(s) in order to determine whether any special-status species may be present within the project site.</p> <p>The commenter provides recommendations, and guidance for assessment of impacts associated with San Joaquin kit fox, Crotch’s bumble bee, Swainson’s hawk, burrowing owl, American badger, western spadefoot, American badger, and San Joaquin kit fox.</p>
Santa Rosa Rancheria Tachi Yokut Tribe December 4, 2023	The commenter acknowledges receipt of the NOP and states that due to the location of this project, the tribe will defer to the more local tribes of the area.
California Department of Transportation (Caltrans) December 5, 2023	The commenter acknowledges review of the TIS for the proposed project and requests additional information to further assess the TIS, indicating that the comment letter from September 26, 2023 still applies.

2.4.3 Availability of the Draft EIR

This Draft EIR is being distributed directly to agencies, organizations, and interested groups and persons for comment during a 45-day formal review period in accordance with CEQA Guidelines Section 15087. 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 and Natural Resources Department, located at:

Kern County Planning and Natural Resources Department
 2700 “M” Street, Suite 100
 Bakersfield, CA 93301-2370
 Phone: 661.862.8600, Fax: 661.862.8601

This Draft EIR is also available on the Kern County Planning and Natural Resources Department website: <https://kernplanning.com/planning/environmental-documents/>.

Additionally, this Draft EIR is available at the following libraries:

Kern County Library/Beale
Local History Room
701 Truxtun Avenue
Bakersfield, CA 93301

Kern County Library
Frazier Park Branch
3732 Park Drive
Frazier Park, CA 93501

2.5 Format and Content

This Draft EIR addresses the potential environmental effects of the proposed project and was prepared following input from the public and responsible and affected agencies, and through 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 an EIR was required to address potentially significant environmental effects on the following resources:

- Aesthetics
- Agriculture 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
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

Additionally, no comments were received during circulation of the IS/NOP indicating that additional topics would need to be addressed.

2.5.1 Required EIR Content and Organization

This EIR includes all of the sections required by CEQA. **Table 2-2** contains a list of sections required under CEQA Guidelines, along with a reference to the chapter in which they can be found in this Draft EIR document.

TABLE 2-2: REQUIRED EIR CONTENTS

Requirement (CEQA Guidelines Section)	Location in Draft EIR
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
Significant Environmental Impacts (Section 15126.2)	Sections 4.1–4.20

Requirement (CEQA Guidelines Section)	Location in Draft EIR
Environmental Setting (Section 15125)	Sections 4.1–4.20
Mitigation Measures (Section 15126.4)	Sections 4.1–4.20
Cumulative Impacts (Section 15130)	Sections 4.1–4.20
Growth-inducing Impacts (Section 15126.2)	Chapter 5
Significant Irreversible Changes	Chapter 5
Unavoidable Significant Environmental Impacts (Section 15126.2)	Chapter 5
Alternatives to the Project (Section 15126.6)	Chapter 6
Response to Comments (Section 15132)	Chapter 7
Organizations and Persons Consulted	Chapter 8
List of Preparers (Section 15129)	Chapter 9
References (Section 15129)	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 proposed 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 proposed 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 proposed 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, List of 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 is organized as follows:

- “Introduction” provides a brief overview on the purpose of the section being analyzed with regards to the proposed project.
- “Environmental Setting” describes the physical conditions that exist at this time and that may influence or affect the topic being analyzed.
- “Regulatory Setting” provides State and federal laws and the Kern County General Plan goals, policies, and implementation measures that apply to the topic being analyzed.
- “Thresholds of Significance” provides the standards utilized by the lead agency in identifying potentially significant impacts.
- “Impacts and Mitigation Measures” discusses the impacts of the proposed 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 proposed 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 Kern County Planning and Natural Resources Department, may require subsequent oversight, approvals, or permits from other public agencies in order for the project to be implemented. Other such agencies are referred to as “responsible agencies” and “trustee agencies.” Pursuant to CEQA Guidelines Sections 15381 and 15386, 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 (CEQA Guidelines § 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 (CEQA Guidelines § 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 may include, but are not limited to, the following:

2.6.1 Federal Agencies

- United States Fish and Wildlife Service (USFWS)
- United States Environmental Protection Agency (EPA)

2.6.2 State Agencies

- Governor’s Office of Planning and Research (OPR)

- California Air Resources Board (ARB)
- California Department of Fish and Wildlife (CDFW)
- Central Valley Regional Water Quality Control Board (Central Valley RWQCB)
- California Department of Transportation (Caltrans), District 6
- California Native American Heritage Commission (NAHC)

2.6.3 Local Agencies

- San Joaquin Valley Air Pollution Control District (Valley Air District)
- Kern Council of Governments (KCOG)

2.6.4 Kern County

- Planning and Natural Resources Department
- Public Works Department
- Public Health Services Department, Environmental Health Division
- Kern County Fire Department (KCFD)
- Kern County Sheriff's Office (KCSO)
- Kern County Superintendent of Schools
- Kern High School District (KHSD)

Other additional permits or approvals may be required for the proposed project.

2.7 Incorporation by Reference

In accordance with CEQA Guidelines Section 15150 to reduce the size of the report, the following documents are hereby incorporated by reference into this Draft EIR and are available for public review at the Kern County Planning and Natural Resources Department. A brief synopsis of the scope and content of these documents is provided below.

2.7.1 Metropolitan Bakersfield General Plan

The Metropolitan Bakersfield General Plan (MBGP) is a policy document with planned land use maps and related information designed to provide long-range guidance to County officials making decisions affecting development and the resources of the unincorporated Kern County and Metropolitan Bakersfield jurisdictions. The MBGP, adopted December 3, 2002, 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 MBGP is available at the following link: https://psbweb.co.kern.ca.us/planning/pdfs/mbgp/mbgp_complete.pdf.

2.7.2 Kern County General Plan

The Kern County General Plan is a policy document with land use maps and related information that are designed to give long-range guidance to those County officials making decisions affecting the growth and resources of the unincorporated Kern County jurisdiction, excluding the metropolitan Bakersfield planning area. This document, adopted on June 15, 2004, and last amended on September 22, 2009, helps ensure that day-to-day decisions conform to the long-range program designed to protect and further the public interest as related to Kern County's growth and development and mitigate environmental impacts. The Kern County General Plan also serves as a guide to the private sector of the economy in relating its development initiatives to the public plans, objectives, and policies of the County. This document has been referenced in this Draft EIR in topical areas that are not included in the MBGP. The Kern County General Plan is available at the following link: https://psbweb.co.kern.ca.us/planning/pdfs/kcgp/KCGP_Complete.pdf.

2.7.3 Kern County Zoning Ordinance

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

- Provide the economic and social advantages resulting from an orderly planned use of land resources.
- Encourage and guide development consistent with the Kern County General Plan.
- Divide Kern County into zoning districts of a number, size, and location deemed necessary to carry out the purposes of the Kern County General Plan 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.

The Kern County Zoning Ordinance is available at the following link: <https://psbweb.co.kern.ca.us/planning/pdfs/KCZONov2022.pdf>.

2.7.4 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 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), which is

required by California’s Sustainable Communities and Climate Protection Act, of Senate Bill (SB) 375. The ARB set Kern GHG emissions reductions from passenger vehicles and light-duty trucks by 9 percent per capita by 2020 and 15 percent 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 need and transportation planning. Kern Council of Governments (Kern COG) engaged in the RHNA 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 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 our 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.

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 the proposed project. Other sources provide background information related to one or more issue 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 during normal business hours at the Kern County Planning and Natural Resources Department, located at 2700 “M” Street, Suite 100, Bakersfield, CA 93301-2370. This Draft EIR is also available on the Kern County Planning and Natural Resources Department website: <https://kernplanning.com/planning/environmental-documents>.

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Chapter 3

Project Description

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3.1 Introduction

This Draft Environmental Impact Report (Draft EIR) has been prepared by Kern County (County), the Lead Agency, under the California Environmental Quality Act (CEQA). The Draft EIR provides information about the environmental setting and identifies and evaluates potential environmental impacts associated with construction and operation of Seefried Industrial Properties' (project proponent) proposed warehouse and distribution facility (proposed project). The proposed Westside Industrial Project (proposed project) is the construction of an approximately 653,442-square-foot single-story warehouse and related improvements. The project, as proposed by the project proponent, would be located on 93.74 acres of land (overall project is 99.28 acres which consists of 5.54 acres of right-of-way dedication) on a 642.68 acre parcel of privately owned land located at the southern end of the San Joaquin Valley in unincorporated Kern County, California as shown in **Figure 3-1: Regional Location Map**. The project site is bounded by Wible Road (west), Houghton Road (north), and agricultural land (south and east) as shown in **Figure 3-2: Local Vicinity Map**. The Assessor's Parcel Number (APN) for the project site is 184-391-08 which totals 642.68 acres.

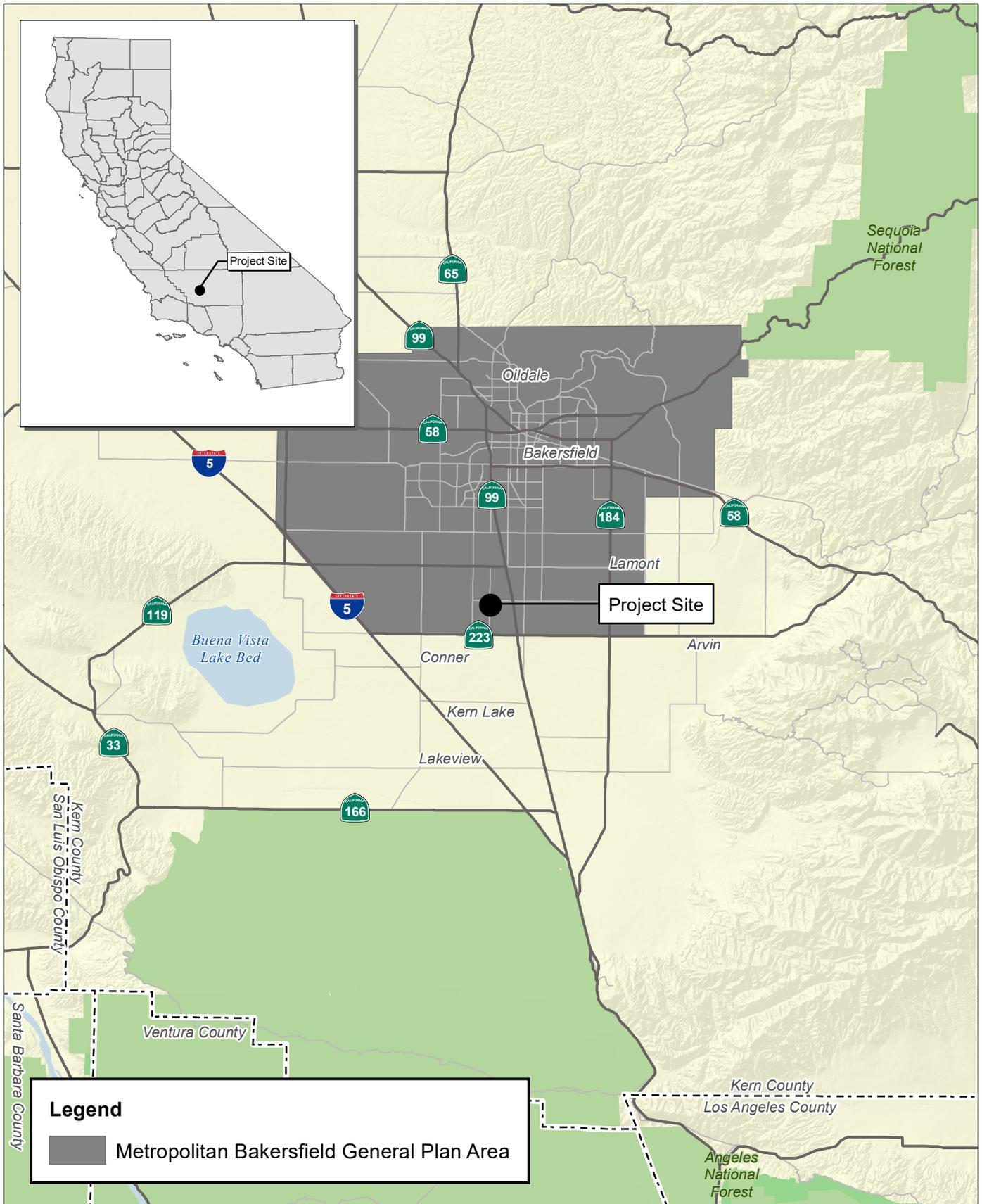
3.2 Project Location

The project site is approximately 1.3 miles south 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) which is within the City of Bakersfield Sphere of Influence (SOI). The City of Arvin lies approximately 11 miles east of the project site, and the unincorporated community of Lamont is approximately 6 miles northeast of the project site. The project site is bound by Houghton Road to the north and Wible Road to the west and is situated approximately 1 mile west of State Route (SR) 99 and 8.75 miles east of Interstate 5 (I-5). Regional access to the project site is available from SR-99 via the Houghton Road exit. Local access to the project site is available from Houghton Road and Wible Road. Unpaved roads provide existing access within the project site.

The Kern Island Canal and a cluster of unincorporated communities, including Alameda, are located approximately 1 mile east of the project site. The project vicinity is characterized by cultivated agricultural uses (row crops and orchards) as well as agricultural processing facilities. The General Shafter Elementary School is located approximately 0.66 mile southeast of the project site at South H Street and Shafter Road. In addition, Kern High School District has identified a future school site at Wible Road and Engle Road approximately 0.5 mile north of the project site.

The project site is located on the *Connor, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map, Township 31 South, Range 27 East, Section 13 (Latitude 35° 14' 0" North; Longitude 119° 2' 0" West). **Figure 3-3a, Proposed Precise Development Plan - Project Statistical Information, Figure 3-3b, Proposed Precise Development Plan—Site Plan Overview, Figure 3-3c, Proposed Precise Development Plan - Enlarged Site Plan Northeast, Figure 3-3d, Proposed Precise Development Plan - Enlarged Site Plan Northwest, Figure 3-3e, Proposed Precise Development**

*Plan - Enlarged Site Plan Southeast, **Figure 3-3f**, Proposed Precise Development Plan - Enlarged Site Plan Southwest, **Figure 3-3g**, Proposed Precise Development Plan – Building Elevations, and **Figure 3-4**, Project Off-site Roadway and Frontage Improvements*, depict the proposed project and the project boundaries.



Legend

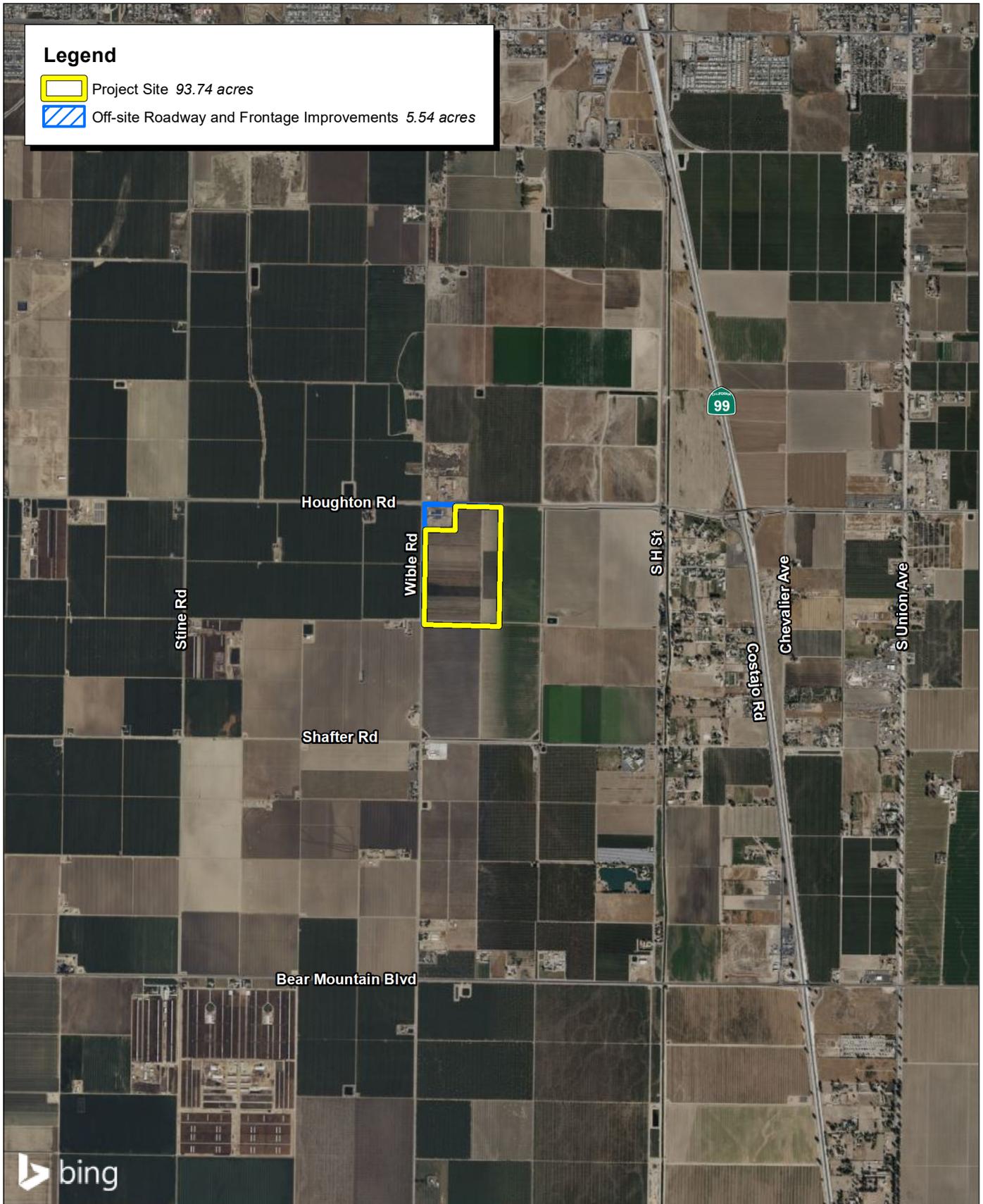
- Metropolitan Bakersfield General Plan Area

Source: Census 2000 Data, The California Spatial Information Library (CaSIL).



Figure 3-1
Regional Location Map

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Source: Bing Aerial Imagery.



Figure 3-2
Local Vicinity Map

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STATISTICAL INFORMATION

PROJECT DATA

EXISTING USE OF PROPERTY:	AGRICULTURE
SPECIFIC USE OF PROPERTY:	WAREHOUSE, DISTRIBUTION CENTER & LOGISTICS
PROJECT AREA:	
SITE:	93.74 ACRES (4,083,314 SF)
OFFSITE R/W DEDICATION:	5.54 ACRES (241,322 SF)
TOTAL:	99.28 ACRES (4,324,636 SF)

NOTE: RETENTION BASINS ON SITE.

BUILDING HEIGHT:	±1.45'-0" FROM F.F.	
BUILDINGS FOOTPRINT:	629,186 SF	
MAIN BLDG WAREHOUSE:	584,762 SF	
MAIN BLDG OFFICE:	44,424 SF	
MEZZANINE:	24,258 SF	
TOTAL:	653,442 SF	

GUARDHOUSE 1	277 SF	
GUARDHOUSE 2	147 SF	
PUMPHOUSE	403 SF	
TOTAL:	827 SF	

COVERAGE:

GROSS:	15.4%
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PARKING REQUIRED:

WAREHOUSE		
1ST 10KSF	1/1000 SF	10 STALLS
OVER 10KSF	1/3000 SF	200 STALLS
OFFICE	1/250 SF	182 STALLS
TOTAL:		392 STALLS

PARKING PROVIDED:

ASSOCIATE SPACES (9'x20'):	1,000 STALLS
@2.49/1000 SF	16 STALLS
MOTORCYCLE SPACES	702 STALLS
TRUCK TRAILER SPACES(12'x55'):	135 STALLS
DOCK TRAILER SPACES	135 STALLS

EV PARKING PROVIDED:

EVCS (20% OF 1000)	200 STALLS
EVSE (25% OF 200)	50 STALLS
ACCESSIBLE EVCS (2 VANS, 5 STD, 5 AMBU)	12 STALLS

PER CAL GREEN EVCS ARE NOT PARKING STALLS
 TOTAL ADJUSTED PARKING SPACE PROVIDED: 800 STALLS

ACCESSIBLE PARKING RD. (2% OF 800): 16 (3 VANS, 13 STD)
 ACCESSIBLE PARKING PROVIDED: 22 (4 VANS, 16 STD)

MEDIUM AND HEAVY DUTY EVSE REQUIRED: 1 OR GREATER
 MEDIUM AND HEAVY DUTY EVSE PROVIDED: 10

BICYCLE PARKING REQUIRED (5% OF 800): 40
 BICYCLE PARKING PROVIDED: 40

TYPE OF PAVING:
 ASSOCIATE PARKING: STANDARD ASPHALT
 SECURE TRUCK COURTS: COMBINATION OF STANDARD ASPHALT AND CONCRETE
 NOTE: BUMPER BLOCKS PROVIDED AT ALL PEDESTRIAN WALKWAYS THROUGHOUT SITE.
 BUMPER BLOCKS PROVIDED: 515

TRUCK STALLS:

DOCK-HIGH DOORS	132
GRADE-LEVEL DOORS	4

LAND DEVOTED TO LANDSCAPE:
 AREA: 15.89 ACRES
 692,485 SF
 % OF SITE PROVIDED: 16.12 %

METHOD FOR SEWAGE:
 WASTEWATER TREATMENT PLANT FOR BUILDING.

WATER SUPPLY: CALWATER WATER SUPPLY

PROPOSED EASEMENTS AND FLOOD CONTROL ON-SITE DRAINAGE HAS BEEN DESIGNED TO HANDLE A 100 YEAR RAIN FALL. MULTIPLE ON SITE WATER DETENTION AREAS HAVE BEEN INCORPORATED FOR PEAK STORM ATTENUATION. NO OFFSITE STORM IMPROVEMENTS ARE REQUIRED.

LIMITS OF PROPOSAL: OUR LIMITS ARE WITHIN OUR SITE PLAN BOUNDARY, SINGLE PHASE.

PROPOSED DEDICATIONS AND IMPROVEMENTS: HOUGHTON ROAD AND WIBLE ROADS HAVE DEDICATIONS REQUIRED. FRONTAGES FOR BOTH ROADS WILL BE IMPROVED.

BUILDING CONSTRUCTION MATERIAL: CONCRETE PANELS

MONUMENT SIGN SIZING: 8'H x 12'W x 14'D

PEDESTRIAN AISLE WIDTH: 8'-0"

FENCE MATERIAL: GALVANIZED CHAIN LINK FENCE

PROPOSED FOR OUTSIDE STORAGE: NONE

REQUESTED MODIFICATION OR VARIANCE: SEE FORM-101-ZONE-CHANGE-APPLICATION-2020

DEVELOPMENT STANDARDS:

(E) ZONING:	A
PROPOSED ZONING:	M-1PD
(E) LAND USE DESIGNATION:	RIA
PROPOSED LAND USE DESIGNATION:	LI

OFF-STREET PARKING:

STANDARD:	9'x20'
COMPACT:	8'x16'
COMPACT %:	20%
DRIVE AISLE:	26'
TREE WELL:	4'

REQ. PARKING RATIO BY USE:

WAREHOUSE:	1/1000 SF
OFFICE:	1/250 SF

NOTES:
 1 - NO BUILDING OR STRUCTURE SHALL EXCEED 10 STORIES OR 135 FEET.
 2 - 5% OF THE PARKING AREA SHALL BE LANDSCAPED. 1 TREE PER 6 STALLS.

1/1000 FOR THE FIRST 10,000 SF.
 1/3000 FOR THE REMAINDER.



VICINITY MAP



AERIAL PHOTO

SHEET INDEX

ARCHITECTURAL	
A0	COVER SHEET
A1	PROJECT DATA
A2	OVERALL SITE PLAN
A2a	ENLARGED SITE PLAN NORTHEAST
A2b	ENLARGED SITE PLAN NORTHWEST
A2c	ENLARGED SITE PLAN SOUTHEAST
A2d	ENLARGED SITE PLAN SOUTHWEST
A2e	ENLARGED SITE PLAN
A3	GROUND FLOOR PLAN
A4	MEZZANINE FLOOR PLAN
A5	BUILDING ELEVATIONS
A6	BUILDING SECTIONS
ARCHITECTURAL SHEET COUNT: 12	

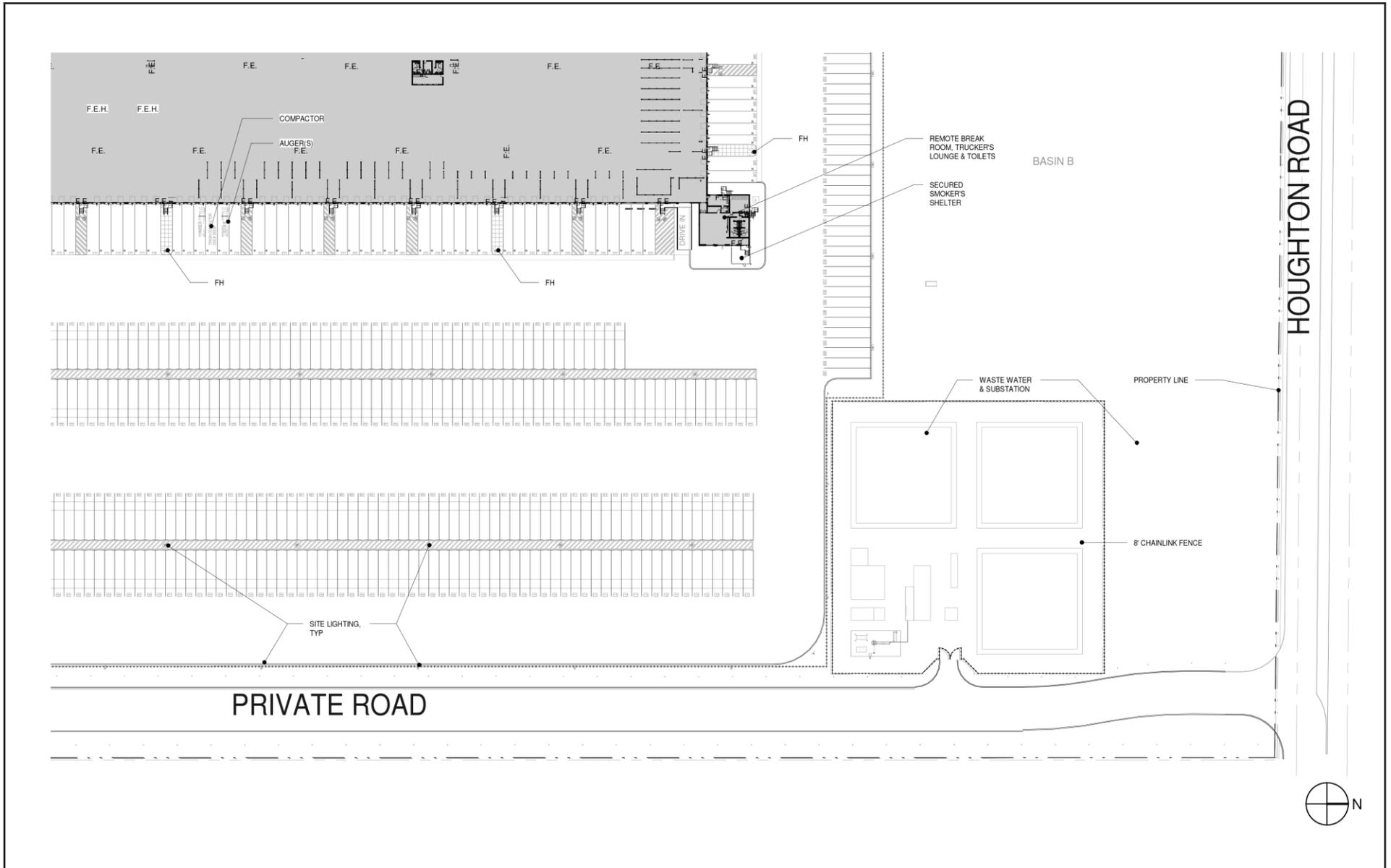
LANDSCAPE	
L0	LANDSCAPE NOTES
LANDSCAPE SHEET COUNT: 1	

Source: Ware Malcomb, 07/30/2023.

Figure 3-3a
Proposed Precise Development Plan - Project Statistical Information

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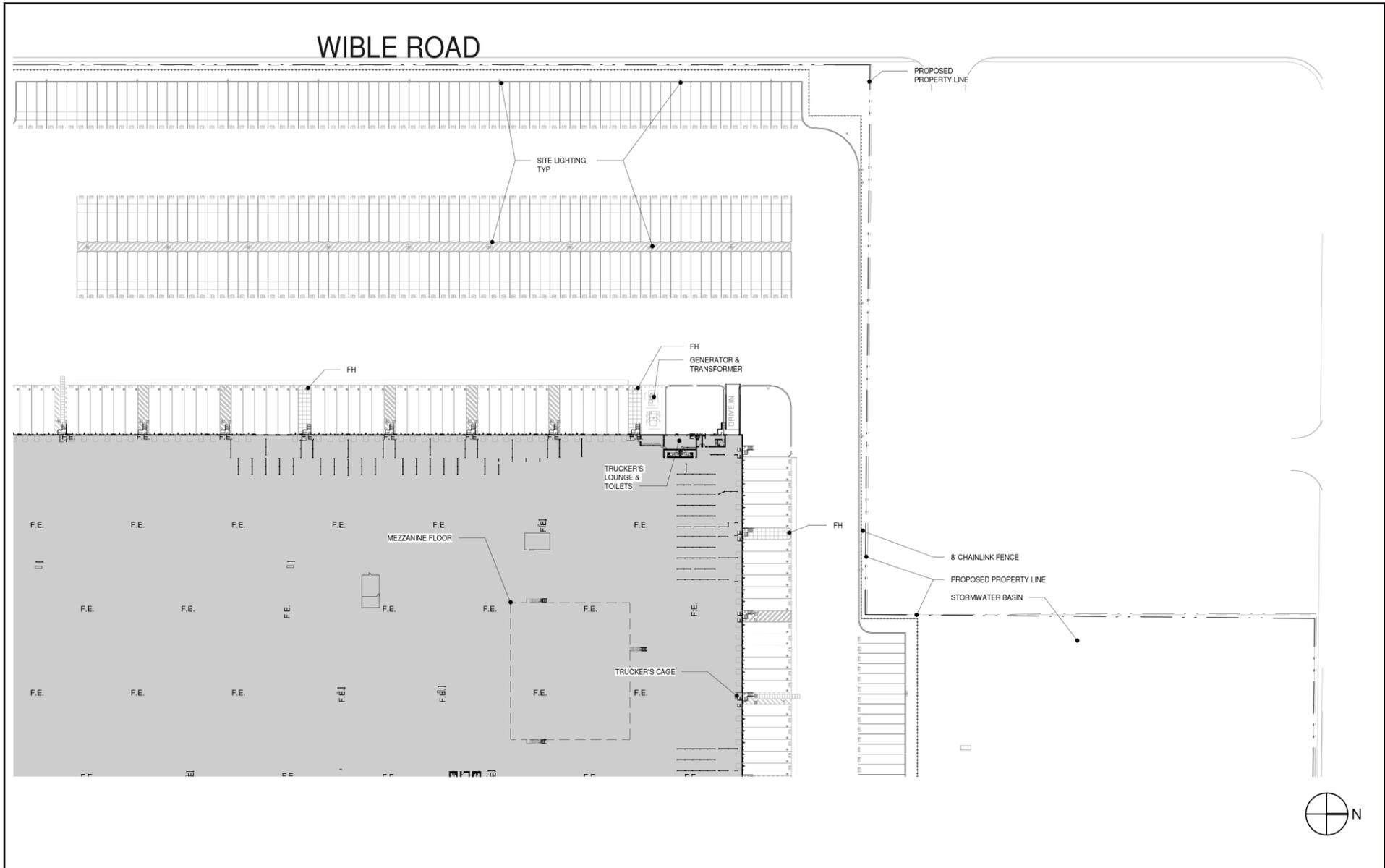


Source: Kimley-Horn, Ware Malcomb, 07/05/2023.



Figure 3-3c
Proposed Precise Development Plan - Enlarged Site Plan Northeast

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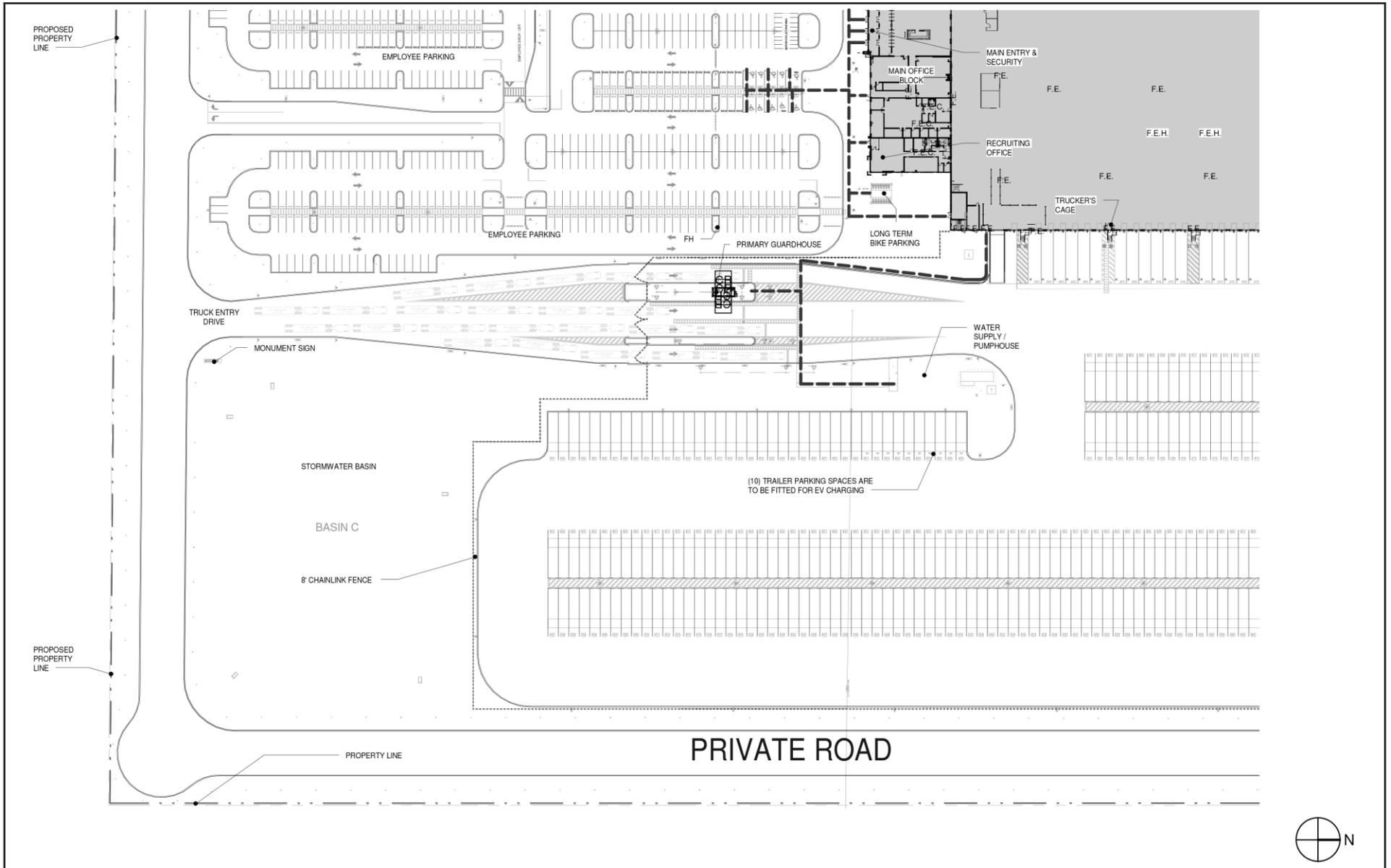


Source: Kimley-Horn, Ware Malcomb, 07/05/2023.



Figure 3-3d
Proposed Precise Development Plan - Enlarged Site Plan Northwest

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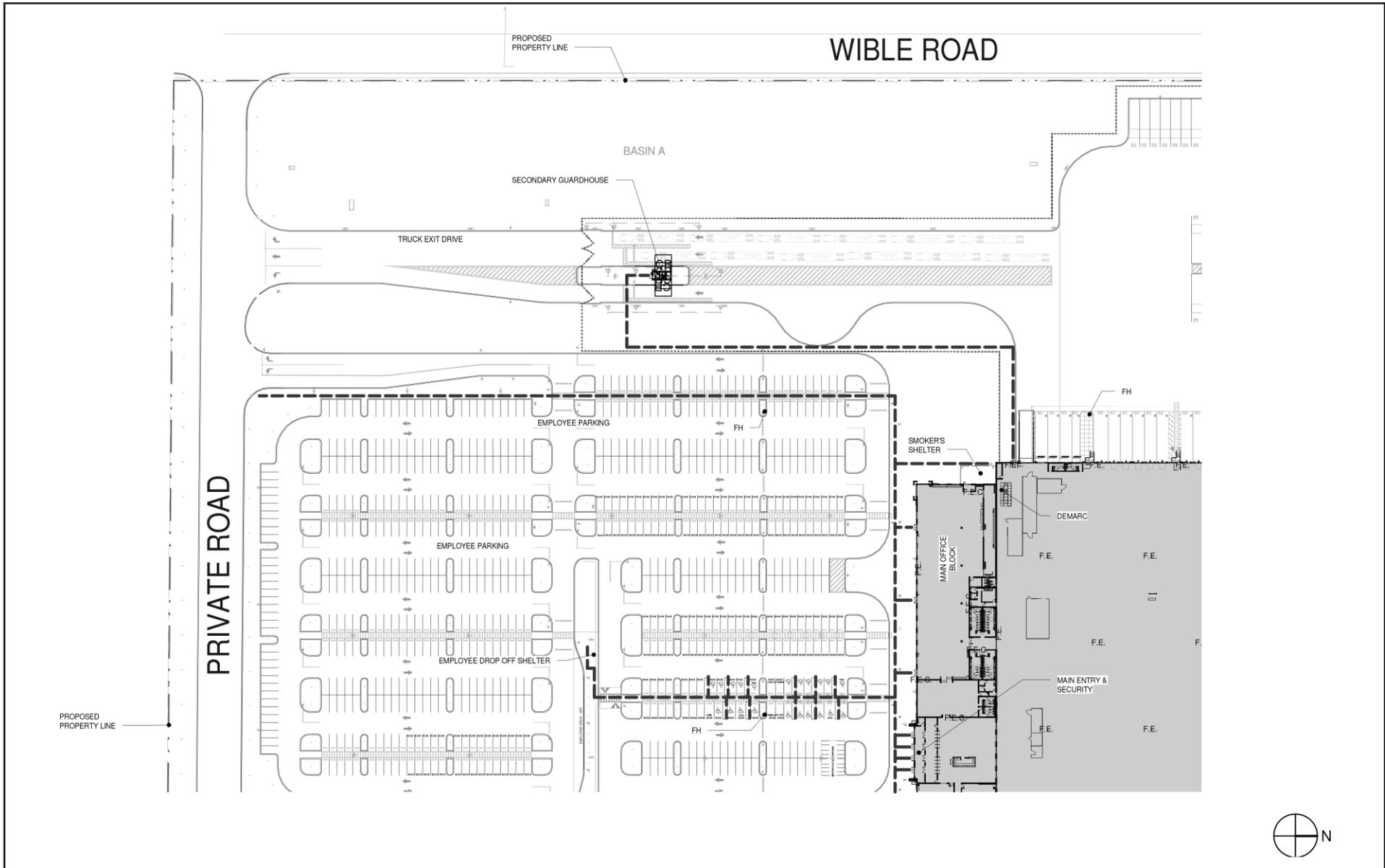


Source: Kimley-Horn, Ware Malcomb, 07/05/2023.



Figure 3-3e
Proposed Precise Development Plan - Enlarged Site Plan Southeast

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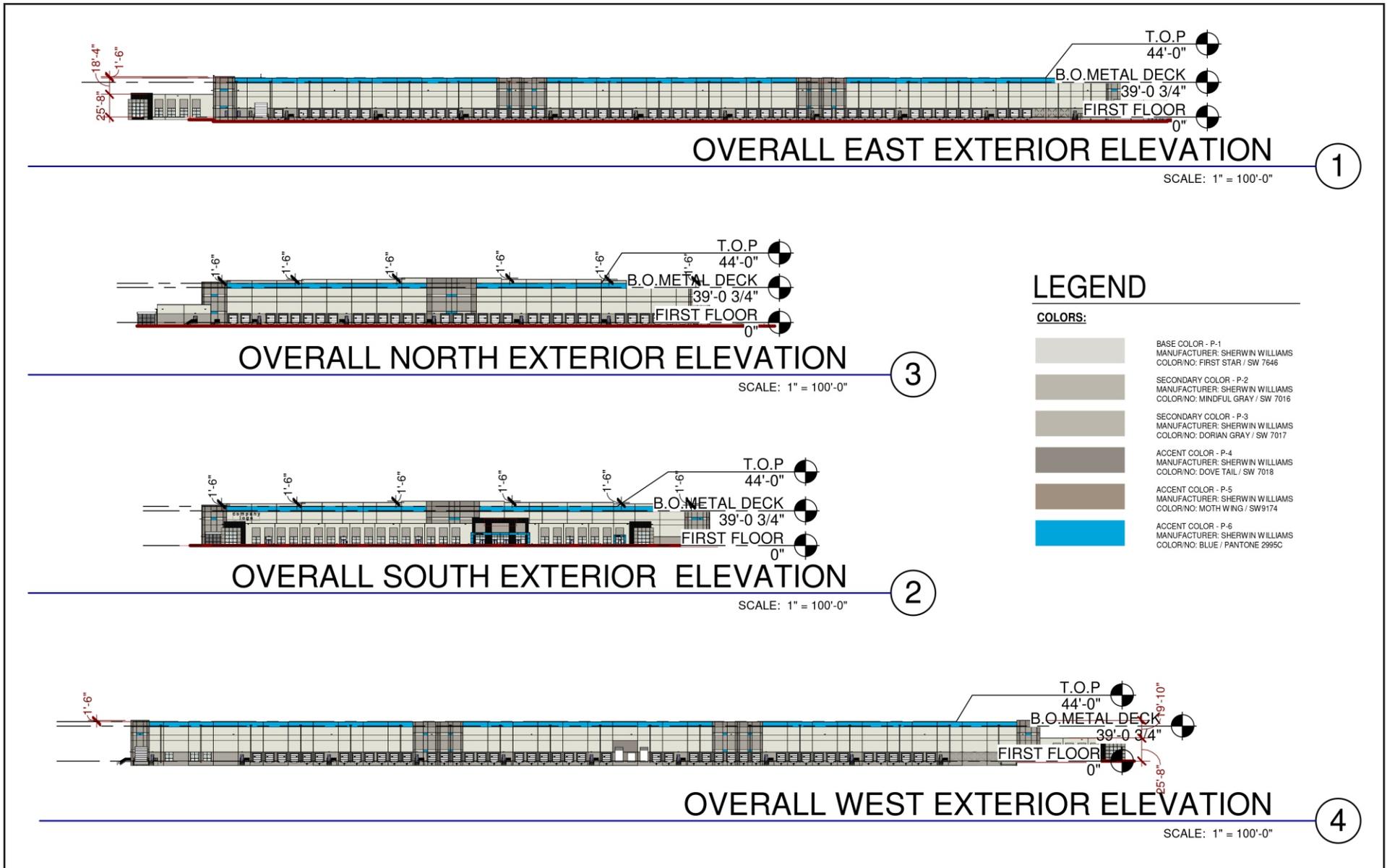


Source: Kimley-Horn, Ware Malcomb, 07/05/2023.



Figure 3-3f
Proposed Precise Development Plan - Enlarged Site Plan Southwest

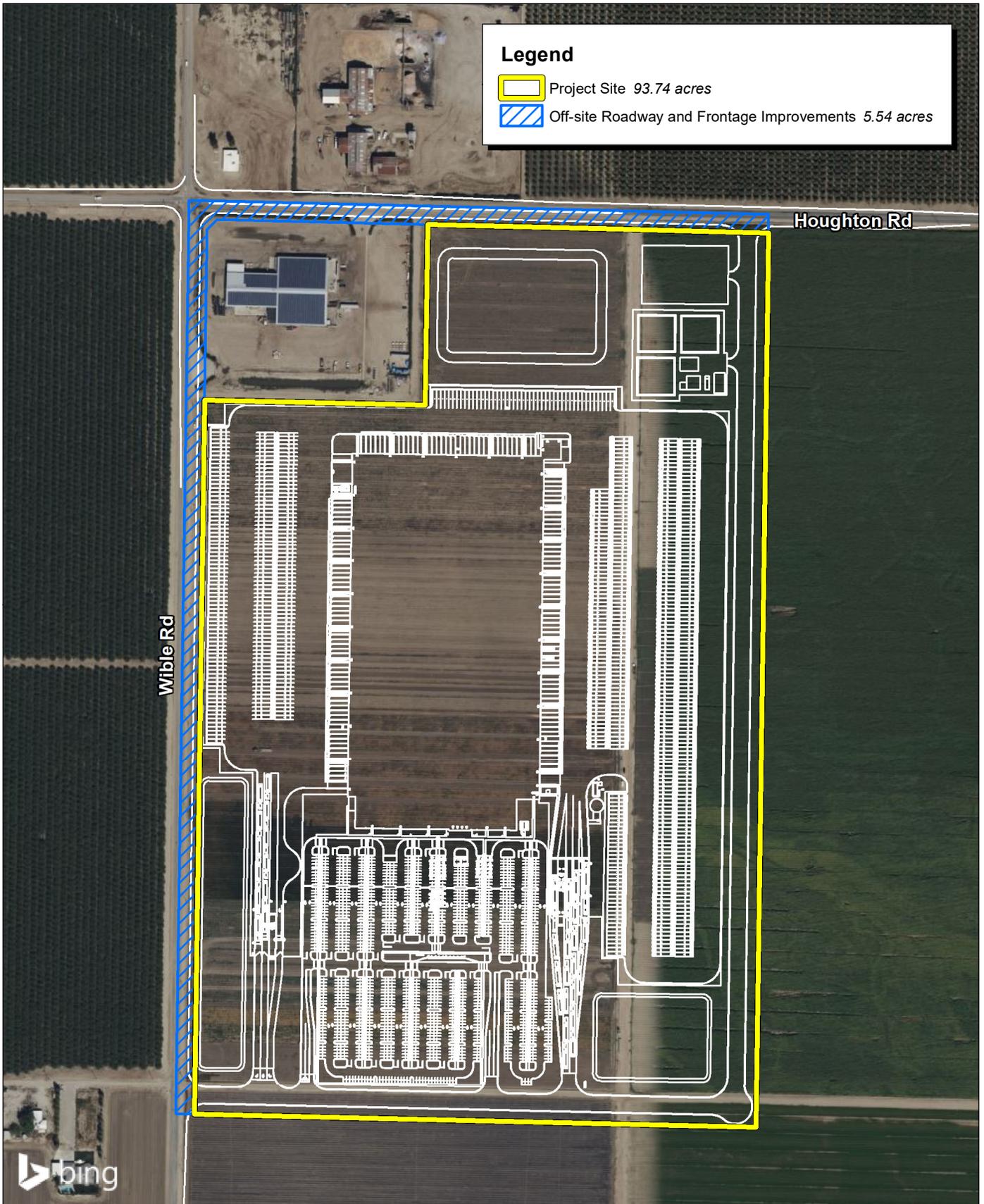
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Source: Ware Malcomb, 03/30/2023.

Figure 3-3g
Proposed Precise Development Plan - Building Elevations

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Source: Bing Aerial Imagery. Kimley-Horn, 04/2023.



Figure 3-4
Project Off-site Roadway
and Frontage Improvements

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3.3 Proponent Provided Project Objectives

Section 15124(b) of the CEQA Guidelines requires a project description to include a statement of the objectives of a project that addresses the purpose. The following specific objectives have been identified by the project proponent for the proposed project:

- Develop an innovative industrial use on land with ready access to infrastructure and a major transportation corridor.
- Meet regional demand for new warehouse facilities near SR-99 to reduce local and regional traffic congestion and air emissions.
- 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 agricultural uses by developing a compatible industrial project with a secure perimeter.
- 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.
- Improve circulation through the construction of new roads and improvement of existing roads west of SR-99.
- Site an industrial project in a location that minimizes conflicts with residential, conservation, and agricultural uses.

3.4 Environmental Setting

3.4.1 Regional Setting

The project site is situated in the southern end of the San Joaquin Valley, in unincorporated Kern County. Kern County and City of Bakersfield have separately adopted a coordinated general plan for the metropolitan area (Metropolitan Bakersfield General Plan 2002). The 409 square miles of the plan are also the City of Bakersfield adopted SOI. 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. Bakersfield is the largest city in Kern County and has a current estimated population of 408,373 residents (California Department of Finance [CDF] 2023a). The County's current estimated population is 907,476 residents (CDF 2023a).

The project site is relatively flat. Elevation on the project site is approximately 330 feet at the above mean sea level (AMSL) with a gradually decreasing topographic gradient to the south. While this area may be generally characterized as "open flats," outside of leveled fields and orchards, it is better described as an uneven plain consisting of extensive alluvial fans, debris flows 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, but also includes cheatgrass and doveweed.

3.4.2 Surrounding Land Uses

Land uses within the region and the immediate area of the site primarily consist of agriculture with a mix of row crops and grazing land. Land uses surrounding the site include the following:

North—Houghton Road and Martin Feed Inc, an agricultural processing facility, is located north of the project site on the opposite side of Houghton Road. The facility contains several large agricultural structures and is surrounded by a fence.

South—An agricultural property used for row crops is located immediately south of the project site.

West—Wible Road and Martin Feed Inc, an agricultural processing facility, are located immediately west of the project site. The facility includes a canopy that covers processing equipment. An agricultural property used for orchards is located on the west side of Wible Road.

East—An agricultural property used for row crops is located immediately east of the project site.

The immediate project area has few nearby residences. The nearest residence is approximately 400 feet to the southwest. **Table 3-1** presents the existing land uses, Metropolitan Bakersfield General Plan designations, and zoning classification for the project site and surrounding area. The nearest existing schools include General Shafter Elementary School, approximately 0.66 mile southeast from the proposed project site, Dolores S. Whitley Elementary located approximately 2.36 miles north, McKee Middle School is located approximately 2.9 miles northeast, Golden Valley High School is located approximately 3 miles northeast, and Greenfield Middle Schools is located approximately 4.9 miles northeast of the site. In addition, Kern High School District has identified a new school site located approximately 0.5 mile north of the project site at Wible Road and Engle Road.

TABLE 3-1: PROJECT SITE AND SURROUNDING LAND USES

	Existing Land Use	Existing Map Code Designation	Existing Zone Classification
Project Site	Agriculture	Intensive Agriculture (R-IA—minimum 20-acre parcel size)	Exclusive Agriculture (A)
North	Agriculture, Agriculture Processing, Animal Feed Storage	Intensive Agriculture (R-IA—minimum 20-acre parcel size)	Exclusive Agriculture (A)
East	Agriculture, Residential, Private School	Intensive Agriculture (R-IA—minimum 20-acre parcel size), Rural Residential (RR), Public and Private Schools (PS)	Limited Agriculture (A-1), Limited Agriculture/Mobile Home (A-1-MH), Exclusive Agriculture (A)
South	Agriculture, Public School	Intensive Agriculture (R-IA—minimum 20-acre parcel size)	Exclusive Agriculture (A)
West	Agriculture, Residential	Intensive Agriculture (R-IA—minimum 20-acre parcel size)	Exclusive Agriculture (A)

3.4.3 Project Site Conditions

The project site is currently used as an active agricultural field and has been historically covered by row crops. As detailed above, the project site is bordered immediately to the north and west by Houghton Road and Wible Road, respectively, and to the east and south by agricultural uses.

The project site is located within an area that is designated by the California Department of Conservation (DOC) as Important Farmland, which consists of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.

The project site is located within Kern County Agricultural Preserve No. 10, as is the standard practice in Kern County for any land that is zoned A (Exclusive Agriculture). The project site is not encumbered by a Williamson Act Contract.

The project site is located within flood hazard zone X as mapped by the Federal Emergency Management Agency (FEMA). Flood Hazard Zone X indicates areas of minimal flood hazard where the annual risk of flood is less than 0.2 percent. The project site is not identified as a wetland area on the National Wetlands Inventory (United States Fish and Wildlife Service [USFWS] 2023). There are no State-designated Alquist-Priolo Earthquake Fault Zones on the project site. The White Wolf Fault is located approximately 13 miles southeast of the project site, and the San Andreas Fault is located approximately 26 miles from the project site (USGS 2023).

The project site is not designated as a mineral recovery area by the Metropolitan Bakersfield General Plan, but the project site is located within a Surface Mining and Reclamation Act of 1975 (SMARA) study area as designated by the DOC State Mining and Geology Board (SMGB). There are two inactive closed oil and gas wells on the project site and no active oil, gas, or geothermal wells (DOC Geological Energy Management [CalGEM] 2023).

According to the Kern County Airport Land Use Compatibility Plan (ALUCP), the project site is not located within an Airport SOI. The closest public airport is the Bakersfield Municipal Airport, located approximately 5.9 miles to the north. Creekside Airport and Skydive San Joaquin Valley Airport, both private airstrips, are located approximately 7.3 miles southeast and 9.3 miles south of the project site, respectively.

The project site would receive police protection services from the Kern County Sheriff's Office (KCSO), fire protection services from the Kern County Fire Department (KCFD), and emergency medical and rescue services from the Kern County Medical Emergency Service. The nearest KCSO substation that would serve the project site is located approximately 6.62 miles east of the project site at 12022 Main Street in the community of Lamont. The nearest KCFD fire station that would serve the proposed project is Fire Station No. 47 located at 312 Taft Highway approximately 2.53 miles northeast of the project site. The nearest schools to the project site are General Shafter Elementary School located approximately 0.66 mile southeast of the project site.

The project site does not contain any structures and, therefore, is not served by wet or dry utilities. However, California Water Service (Cal Water) has an existing water main located in Wible Road, and Pacific Gas and Electric Company (PG&E) has limited dry utility infrastructure in this area. There is no sewer infrastructure currently on-site.

3.5 Land Use and Zoning

3.5.1 Metropolitan Bakersfield General Plan

Kern County and City of Bakersfield separately adopted but jointly coordinated a General Plan for 409 square miles. Bakersfield is the largest incorporated area in Kern County. Bakersfield is the County Seat. The project site is within the jurisdictional boundaries of the Metropolitan Bakersfield General Plan and is designated Intensive Agricultural (R-IA–minimum 20-acre parcel size). The Intensive Agriculture (R-IA–minimum 20-acre parcel size) designation is applied to areas devoted to the production of irrigated crops, or areas that have the potential for such use. The minimum parcel size for the Intensive Agriculture (R-IA–minimum 20-acre parcel size) designation is 20 gross acres. The existing land uses of the project site and surrounding areas are detailed in **Table 3-1**, above.

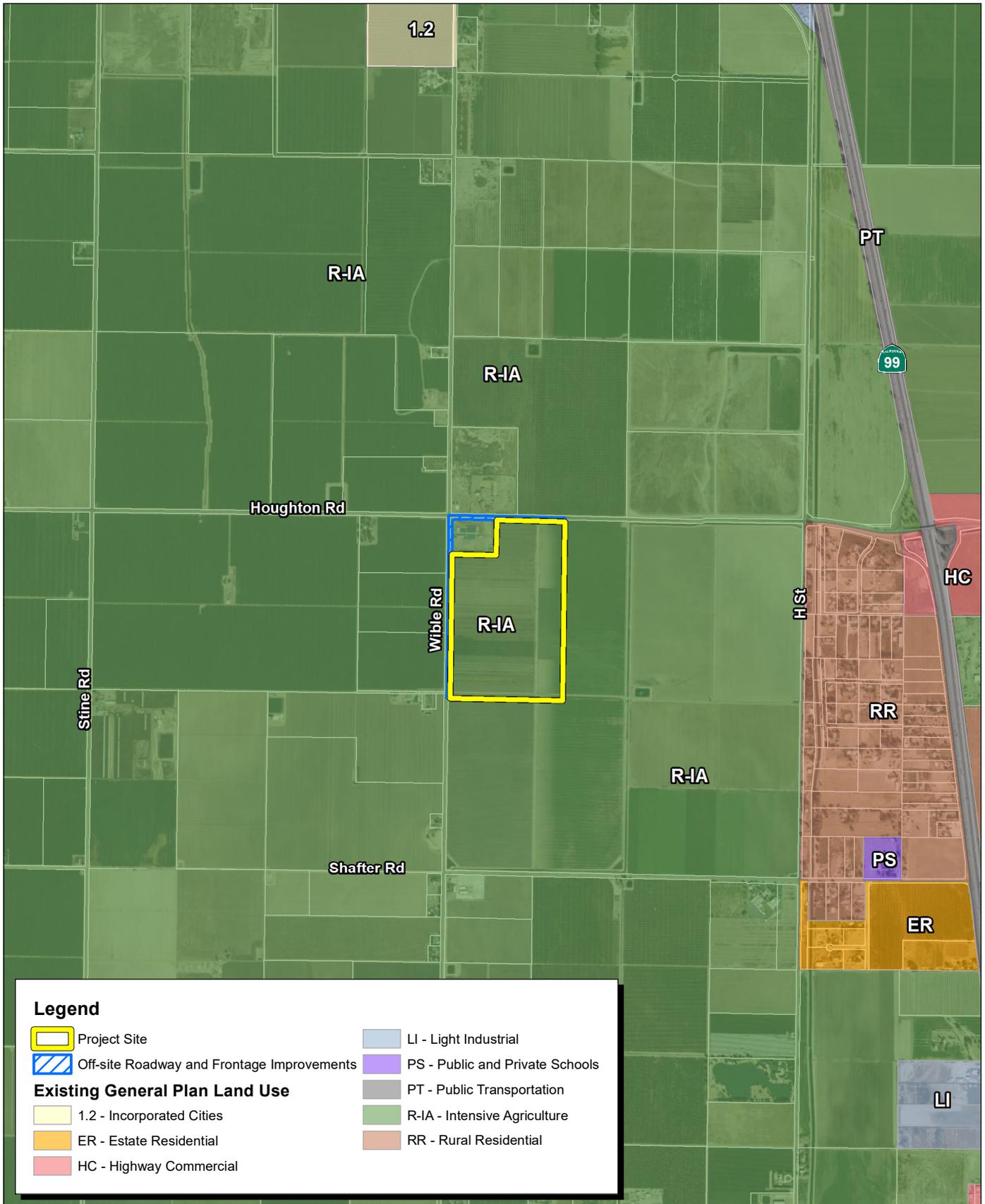
The proposed project includes a request to amend the Kern County Metropolitan Bakersfield General Plan, which would change the existing map code designations for the project site from Intensive Agriculture (R-IA–minimum 20-acre parcel size) as shown in **Figure 3-5**, *Existing General Plan Land Use Designations*, to Light Industrial (LI) as shown in **Figure 3-6**, *Proposed General Plan Land Use Designations*.

3.5.2 Kern County Zoning Ordinance

As detailed in **Table 3-1** above, and as shown in **Figure 3-7**, *Existing Zoning*, the project site is zoned Exclusive Agriculture (A) by the Kern County Zoning Ordinance. The purpose of the A zoning district is to designate areas which are suitable for agricultural uses and to prevent the encroachment of incompatible uses onto agricultural lands and the premature conversion of agricultural lands to nonagricultural uses.

The proposed project includes a request for a Zone Classification Change (ZCC) from Exclusive Agriculture (A) (see **Figure 3-7**) to Light Industrial (M-1) Precise Development (PD) Combining District (M-1 PD), as shown in **Figure 3-8**, *Proposed Zoning*.

Pursuant to County Zoning Ordinance Section 19.36.030, the proposed project would require approval of a Conditional Use Permit (CUP) to allow for the construction and operation of a temporary concrete batch plant to supply concrete during construction pursuant to Section 19.36.030 C. 1 and a permanent on-site wastewater treatment facility, pursuant to Section 19.36.030 H.

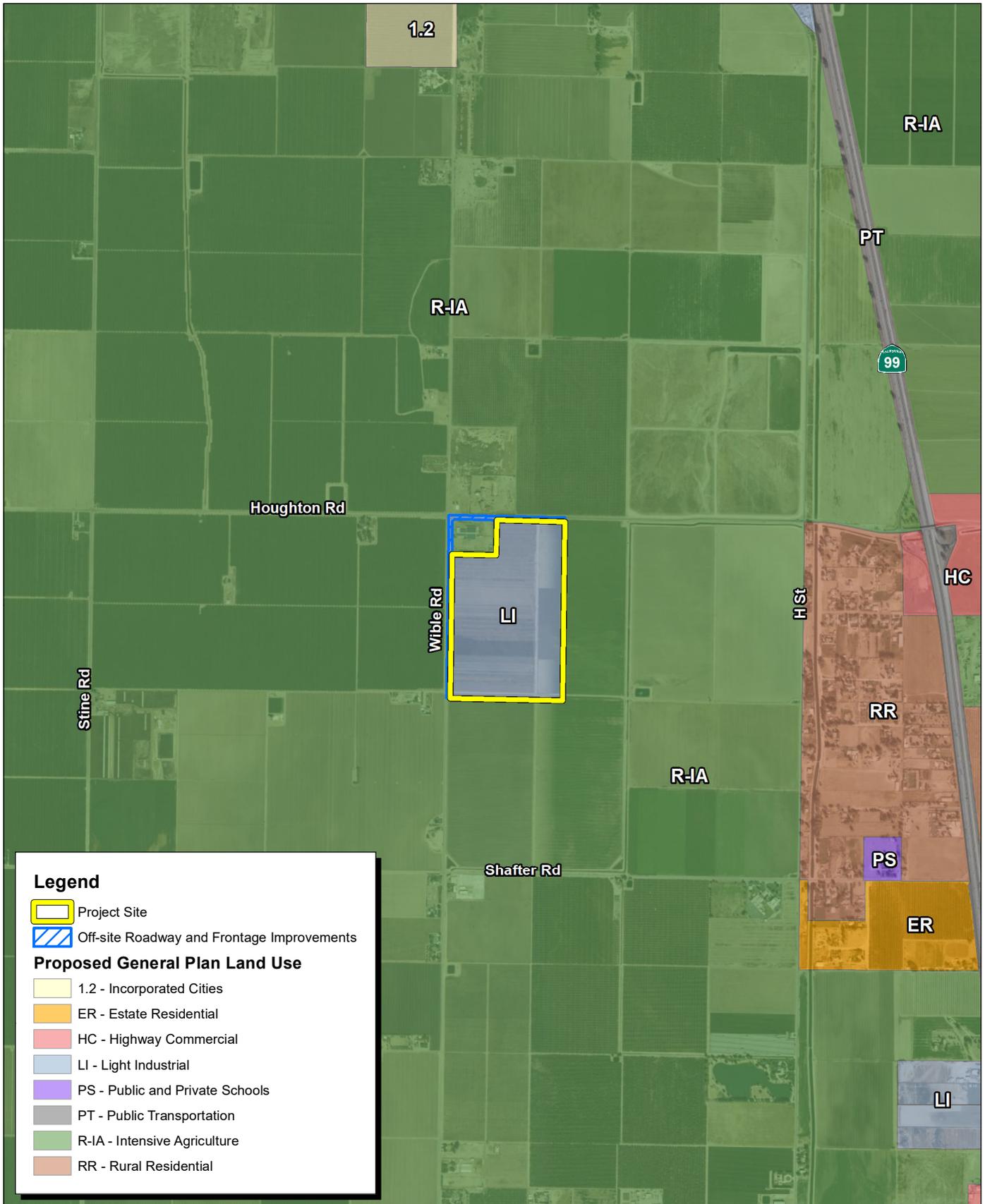


Source: Bing Aerial Imagery. Kern County GIS Data.



Figure 3-5
Existing General Plan Land Use Designations

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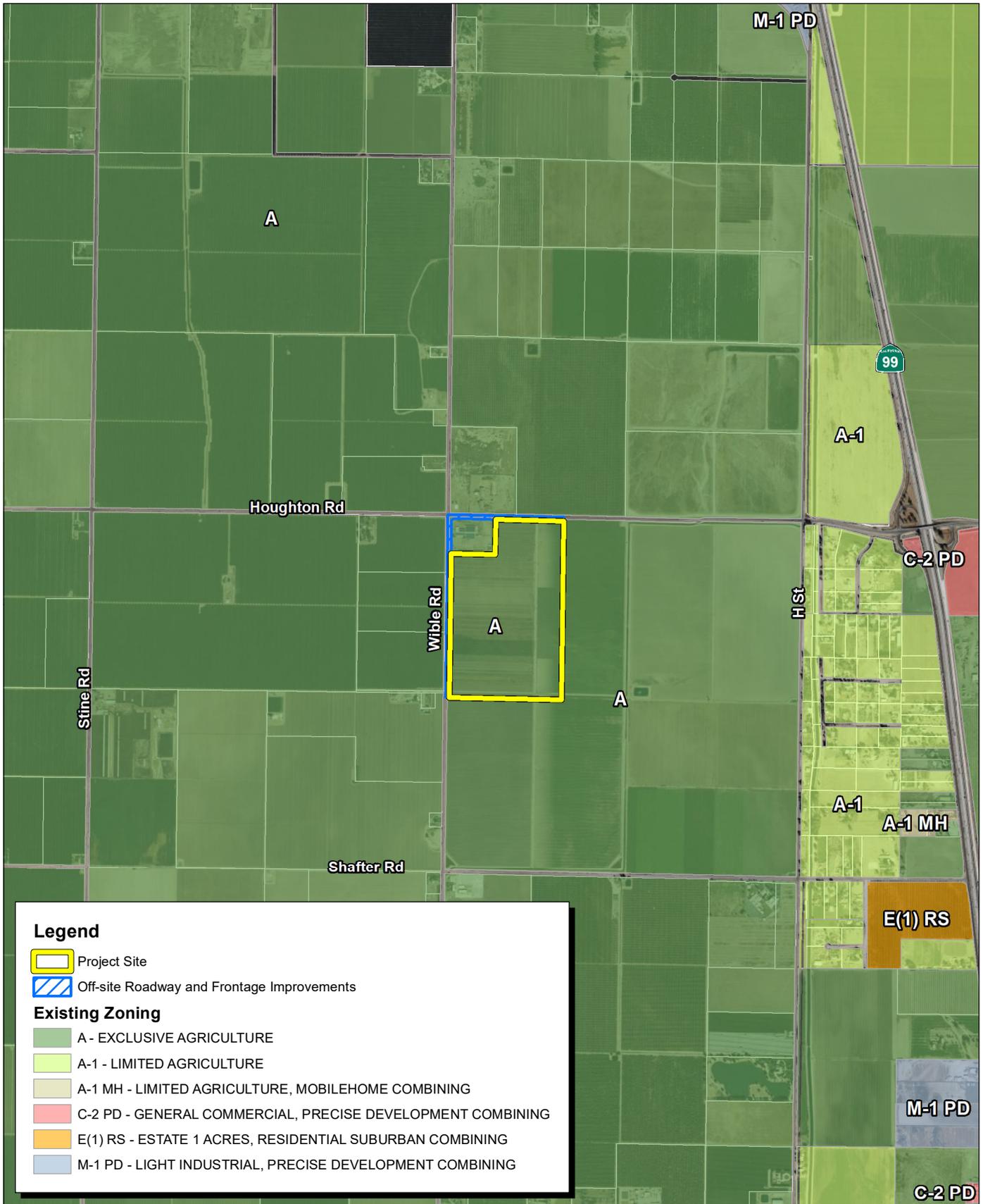


Source: Bing Aerial Imagery. Kern County GIS Data.



Figure 3-6
Proposed General Plan Land Use Designations

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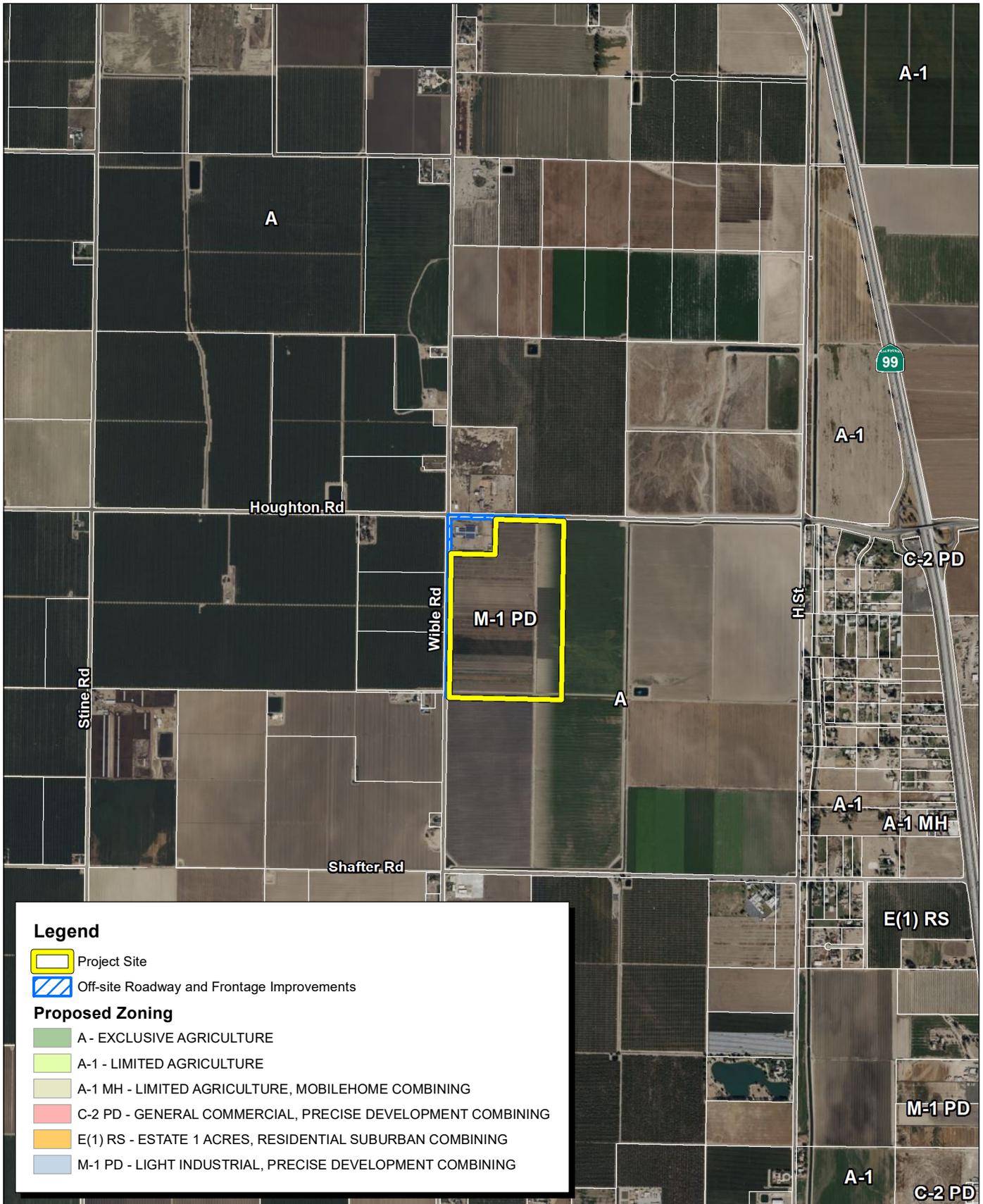


Source: Bing Aerial Imagery. Kern County GIS Data.



Figure 3-7
Existing Zoning

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Source: Bing Aerial Imagery. Kern County GIS Data.



Figure 3-8
Proposed Zoning

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3.6 Proposed Project

The proposed project would include the development of a 653,442-square-foot single-story warehouse distribution facility and associated improvements on approximately 93.74 acres of privately owned land in the central portion of unincorporated Kern County.

Implementation of the project as proposed include the following required actions:

- Amendment to the Land Use Element of the Metropolitan Bakersfield General Plan from Map Code R-IA (Intensive Agriculture – minimum 20-acre parcel size) to LI (Light Industrial) for approximately 93.74 acres (GPA No. 21, Map 142).
- Change in Zone Classification from A (Exclusive Agriculture) to M-1 PD (Light Industrial Precise Development Combining), or a more restrictive district, on approximately 93.74 acres (ZCC No. 69, Map 142).
- Approval of a Precise Development Plan to allow an approximate 629,189 square foot warehouse and logistics facility (Section 19.36.020.E2 & Section 19.36.020.E3) and associated site improvements in the M-1 PD zoning request (PD No. 3, Map 142).
- Conditional Use Permit to allow for the construction and operation of a permanent on-site wastewater treatment facility (Section 19.36.030 K) in the M-1 (Light Industrial) District (CUP No. 75, Map 142).
- Conditional Use Permit to allow for the construction and operation of a temporary concrete batch plant (Section 19.36.030 C.1) in the M-1 (Light Industrial) District (CUP No. 78, Map 142).
- Zone Variance to authorize a 9.63-acre (gross) parcel where 20 acres (gross) is required (Section 19.12.050) in the A (Exclusive Agriculture) District (ZV No. 67, Map 142).
- Tentative Parcel Map No. 12537 proposing the division of a 642.68-acre parcel into a 9.63-acre (gross) parcel, a 97.70-acre (gross) parcel and a 535.35-acre (gross) Designated Remainder which may be processed concurrently with, or subsequent to, other project entitlements.
- An Agricultural Exclusion of 93.74 acres within the boundaries of Agricultural Preserve No. 10, Zone Map No. 142.

3.7 Project Characteristics

3.7.1 Project Overview and Design

The project proponent proposes to develop a 653,442-square-foot single-story warehouse and distribution facility and related improvements. The facility would receive and consolidate products from vendors and then ship these products to other fulfillment centers within the network.

The proposed facility has a footprint of approximately 629,186 square feet (including approximately 44,424 square feet of office space) that would primarily facilitate material handling equipment and warehouse uses, as shown in **Figure 3-3a**, *Proposed Precise Development Plan*. The remaining square footage is made up of a 24,256-square-foot mezzanine, which contains only material handling equipment conveyors

with occasional maintenance and no storage. The proposed project would also include two guardhouses and one pumphouse. **Table 3-2, *Project Summary***, provides a project summary of the proposed project.

TABLE 3-2: PROJECT SUMMARY

Acreage	Proposed End Use	Maximum Building Footprint	Maximum Building Height	Truck Dock		
				Trailer Parking Spaces	Automobile Parking Spaces	Truck Trailer Spaces
93.74 acres	Approximately 653,442-square-foot, high-cube warehouse	629,186	+/-50 feet	135	1,000 stalls	702 stalls

Source: Ware Malcomb, March 2023.

The proposed warehouse building would be concrete tilt-up panel construction. The proposed building roof would consist of metal decking over steel bar joists. The maximum overall height of the facility would be approximately 50 feet high.

The warehouse would be exclusively truck-served, meaning it would be utilized by delivery trucks. **Table 3-3, *Truck Door Summary***, is a summary of the assignment of truck doors by type.

TABLE 3-3: TRUCK DOOR SUMMARY

Type	Doors (approximately)
Dock-High Doors	132
Grade-Level Doors	4
Total	136

Source: Ware Malcomb, March 2023

Parking

Table 3-4, *Parking Summary*, is a summary of the assignment of parking spaces by type.

TABLE 3-4: PARKING SUMMARY

Type	Stalls (approximately)
Automobile	1,000
Truck Trailer	702
Dock Trailer	135
Accessible	22 (4 Van, 18 Standard)
Electric Vehicle Charging Stations (EVCS)	200
EV Supply Equipment (EVSE)	50
Accessible EVCS	12 (2 Van, 5 Standard, 5 Ambulance)
Motorcycle	16

Type	Stalls (approximately)
Bicycle	40

Source: Ware Malcomb, March 2023

Substation

The proposed substation would be located at the northeast portion of the site and would include circuit breakers, disconnect switches, metering protection equipment, and main step-up transformers. The substation required to step up the power generated by the project to transmission voltage would be located immediately inside the northeastern property line. The substation would occupy an area that would be approximately 172 feet by 256 feet in size. The substation would be enclosed by a 6-foot-high chain-link fence topped with barbed wire, and gravel would cover the ground surface in accordance with PG&E Substation requirements. Lighting would be installed in the substation for security and for use at times when nighttime emergency repair work is required.

Vehicular Access and Circulation

A new private road would be constructed along the eastern and southern perimeter of the project site to connect Houghton Road and Wible Road. The road would be two lanes and designed to accommodate heavy trucks. The new intersection of Houghton Road and the new eastern perimeter road would be signalized. The intersection of Wible Road and Houghton Road would also be signalized.

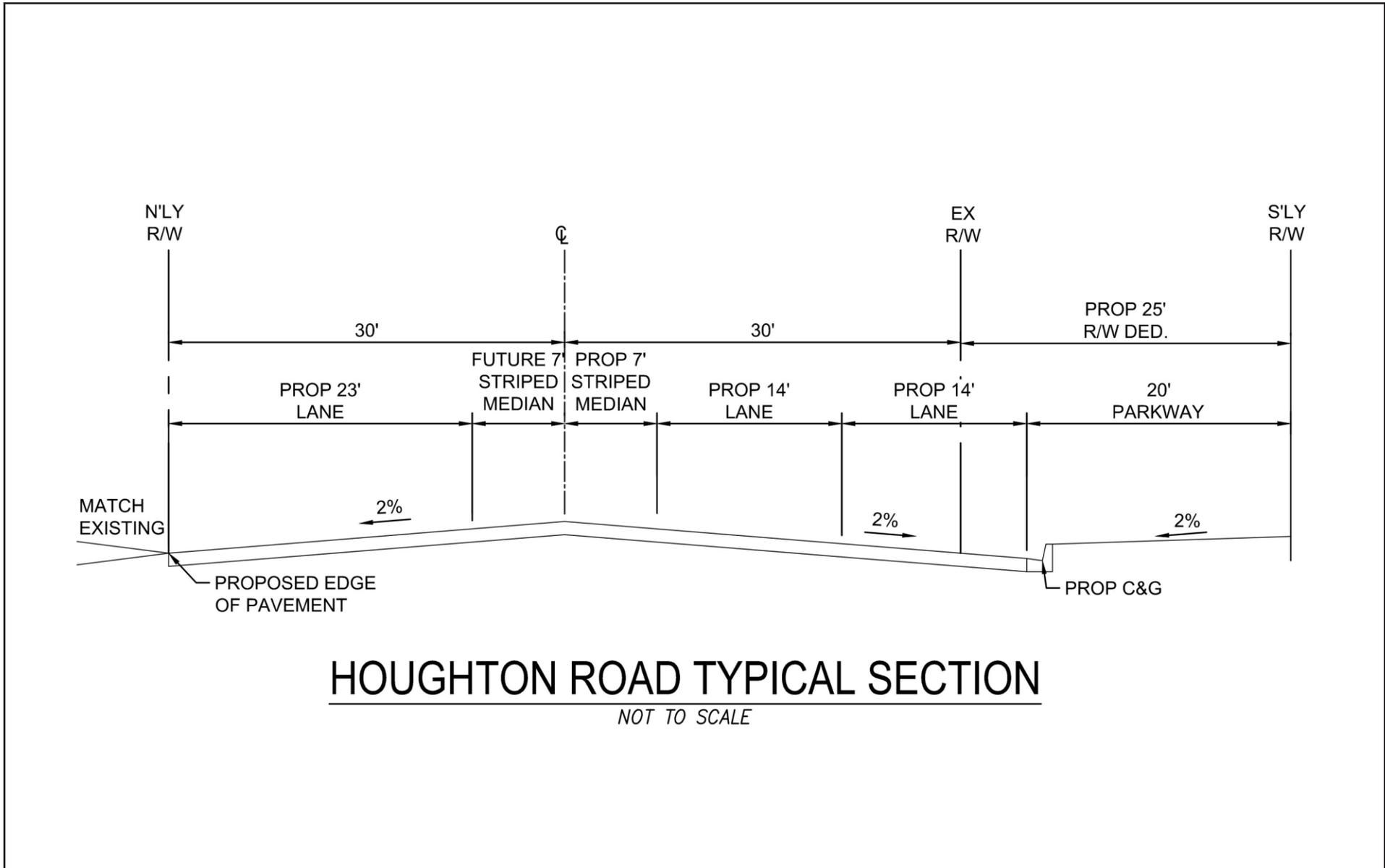
The proposed project would include approximately 5.54 acres of off-site improvements, as shown in **Figure 3-4: Project Off-site Roadway and Frontage Improvements**. The project frontage along Houghton Road and Wible Road would be improved to meet applicable California Department of Transportation (Caltrans) and Kern County standards as follows.

The existing roads, classified as major arterials, would be improved with new pavement, raised median, curb and gutter, and sidewalk. Additionally, signing and markings would be constructed for the new pavement delineations. Improvements to Houghton Road and Wible Road are detailed on **Figure 3-9, Project Off-site Roadway and Frontage Improvements (Houghton Road Cross Section)** and **Figure 3-10, Project Off-site Roadway and Frontage Improvements (Wible Road Cross Section)**.

Landscaping

The proposed project would include approximately 217,529 square feet (4.99 acres) of landscaping and irrigation, which would consist primarily of drought-tolerant and low maintenance plants. Islands with canopy trees would be provided to reduce heat island effect. Landscaping would also be utilized to provide visual screening where needed. Native hydroseed mix and rock cobble will be applied to large areas where landscaping and irrigation is not practical due to non-employee use. Landscaping would exceed the 5 percent landscaping requirement of Section 19.86.060 of the Kern County Zoning Ordinance. There are no existing trees on-site, and therefore no trees would be required to be removed.

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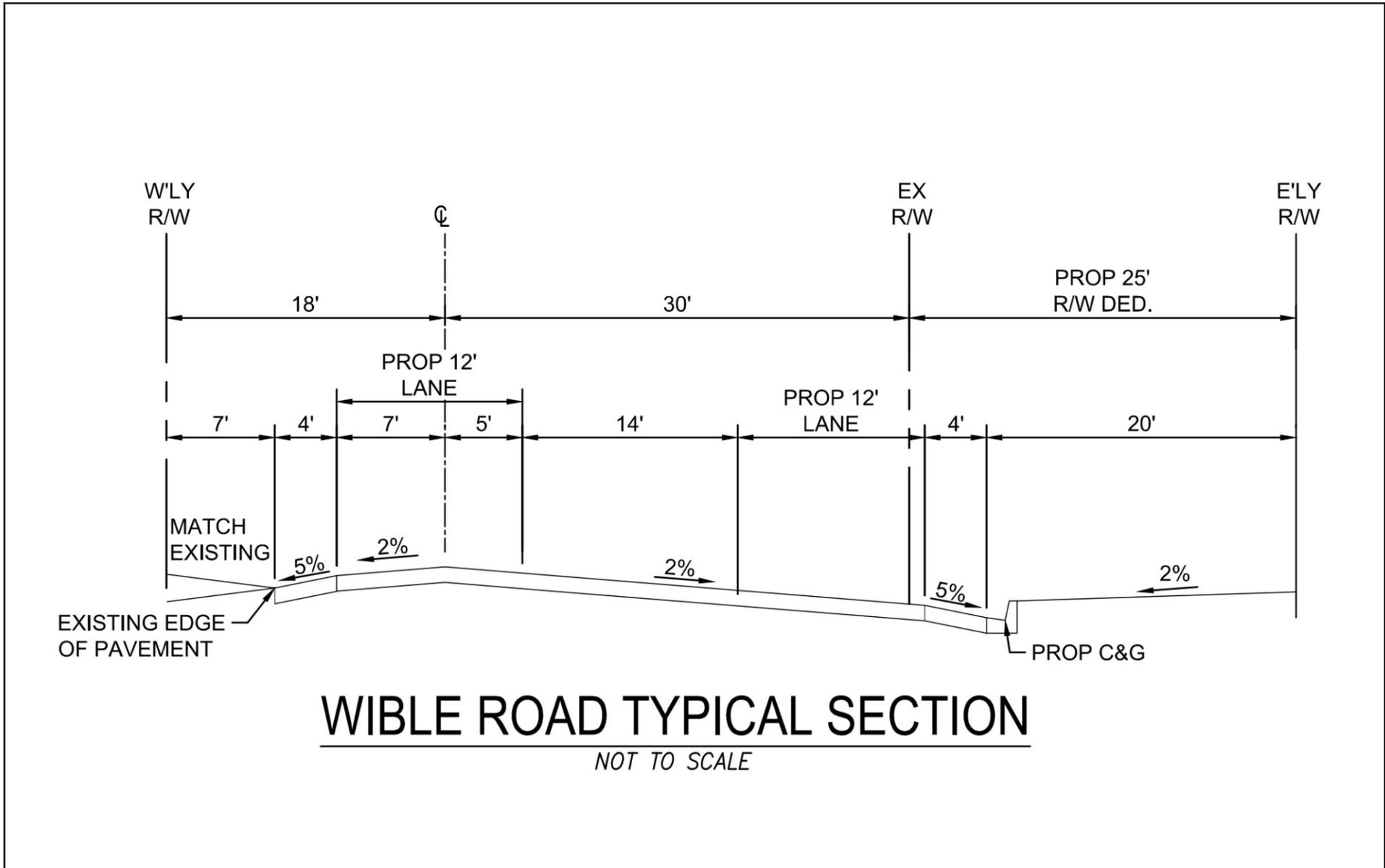
HOUGHTON ROAD TYPICAL SECTION

NOT TO SCALE

Source: PBLA Surveying, Inc. 08/03/2023.

Figure 3-9
 Project Off-site Roadway and Frontage
 Improvements (Houghton Road Cross Section)

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Source: PBLA Surveying, Inc. 08/03/2023.

Figure 3-10
 Project Off-site Roadway and Frontage
 Improvements (Wible Road Cross Section)

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Lighting

The proposed project would operate 24 hours a day, 7 days a week as a warehouse facility. Therefore, 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 flare, 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 and in the substation for security at the site.

3.7.2 Phasing and Construction

Schedule and Workforce

For the purposes of this environmental analysis, the following construction schedule was assumed to last approximately 16 months. The project proponent anticipates that grading of the proposed project would start in July 2024, and would last approximately 20 days. Construction would be completed in a single phase, beginning in September 2024, and concluding in September 2025. It is anticipated that the proposed project would be operational in 2025. Should commencement of construction be delayed, the utilization of July 2024 represents a conservative analysis for the purposes of this Draft EIR.

Construction would primarily occur Monday through Friday, between 7:00 a.m. and 8:00 p.m., as required to meet the construction schedule. Additional hours/days may be necessary to facilitate the schedule. Any construction work performed outside of the normal work schedule would be coordinated with the appropriate agencies and would conform to the Kern County Noise Ordinance (Chapter 8.36). As noted in the Noise Ordinance, there are no limits to construction hours if a project is not within 1,000 feet of residences.

The on-site construction workforce would consist of up to 100 individuals; however, the average daily workforce would vary depending upon the stage in 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 prior to the beginning of each workday. Parking for construction personnel would be provided on-site. Portable toilets would be used and would be maintained by a private off-site company during the construction period.

Construction Activities and Equipment

Construction activities would consist of site preparation, grading, building construction, paving, and architectural coating. During construction, a temporary on-site batch plant would be necessary and assembled to manufacture and construct the facility and related improvements. This on-site batch plant will be disassembled after construction is complete.

Construction Water Use and Wastewater

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

Solid and Non-hazardous Waste Disposal

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.

Hazards and Hazardous Materials Compliance

The 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. 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, 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 (e.g., 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 (OSHA), Title 9 of the Code of Federal Regulations, and Title 8 of the California Code of Regulations. The construction contractor selected for the project would be responsible for ensuring that construction workers are trained in accordance with local, state, and federal requirements for handling hazardous materials.

3.7.3 Project Operations and Maintenance

The proposed facility would operate 24 hours a day, 365 days a year and typically consist of both day and night shifts. The facility would employ approximately 915 employees per shift (two shifts, for a total of 1,830 employees) in peak season and approximately 732 employees per shift (two shifts for a total of 1,464 employees) in non-peak season. Once operational, the proposed project would utilize standard equipment such as electric forklifts and pallet jacks.

Vehicular Access and Circulation

The proposed project would generate approximately 145 daily truck trips. Ingress to the proposed project would be taken from the new southern perimeter road via the existing Wible Road. The southern perimeter road driveways would serve the employee parking lot as well as the truck entrance and exit. The eastern entrance would feature a primary guardhouse. Truck egress would occur at the western entrance of the southern perimeter road, which would also feature a secondary guardhouse.

Utilities and Infrastructure

The proposed project would be served with potable water provided by Cal Water. Service laterals would be extended from an existing water line located within Wible Road. The project proposes a single water tank for fire suppression volume.

The proposed project would be served by a private wastewater collection and treatment package system located on-site to accommodate the wastewater needs. Electricity and natural gas service would be provided by PG&E during construction. Once operational, a substation would be located at the northeast corner of the project site and would provide power generation for the on-site building. Natural gas would not be required for project operation.

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 one of three detention basins located at the southwest and southeast corners of the project site, as well as near the northern frontage of the project site along Houghton Road. 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.

Solid and Non-hazardous Waste Disposal

The proposed project would produce a small amount of waste associated with maintenance activities, which could 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 on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill. The closest Class III municipal landfill is the Bakersfield Municipal Landfill.

Hazards and Hazardous Materials Compliance

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.

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.

3.8 Entitlements Required

Kern County, as Lead Agency for the project, has primary discretionary land use authority over the proposed project. The proposed project requires approval of land use entitlements including a General Plan Amendment, zone change, Conditional Use Permits, Precise Development Plan and Tentative Parcel Map. Consideration and certification of a Final EIR by the Kern County Board of Supervisors with appropriate findings (see CEQA Guidelines §§ 15091 and 15093), and a Statement of Overriding Considerations and adoption of a Mitigation Measure Monitoring Program (MMMP). Construction and operation of the proposed project would require certain discretionary actions and approvals from the County consisting of the following:

3.8.1 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 Metropolitan Bakersfield Kern County General Plan Amendment No. 21, Map No. 142.
- Approval of Zone Classification Change No. 60, Map No. 142.
- Approval of Exclusion from Agricultural Preserve No. 10.
- Approval of Precise Development Plan No. 3, Map No. 142.
- Approval of Conditional Use Permit No. 75, Map No. 142.
- Approval of Conditional Use Permit No. 78, Map No. 142.
- Approval of Zone Variance No. 67, Map No. 142
- Approval of and Recordation of Tentative Parcel Map No. 12537.
- Approval of Grading Permits.
- Approval of Building Permits.
- Approval of Water Supply Assessment.

3.8.2 Other Responsible/Trustee Agencies

In addition to the above discretionary approvals from the County, it may be necessary to obtain other discretionary entitlements, approvals or permits from other public agencies with jurisdiction over aspect(s) of the proposed 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, including:

- Central Valley Regional Water Quality Control Board (Central Valley RWQCB)
 - National Pollutant Discharge Elimination System (NPDES) Construction General Permit
 - General Construction Stormwater Permit (Preparation of a Storm Water Pollution Prevention Plan [SWPPP])

- California Department of Transportation (Caltrans)
 - Right-of-Way Encroachment Permit, and
 - Oversized Loads Permit
- San Joaquin Valley Air Pollution Control District (Valley Air District)
 - Authority to Construct
 - Construction Fugitive Dust Control Plan
 - Permit to Operate
 - Indirect Source Rule and Voluntary Emission Reduction Agreement
- Other applicable permits or approvals from responsible agencies may be required for the proposed project.

3.9 Cumulative Projects

CEQA requires that an 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 potential 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, Title 14, Section 21083(b), “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” (California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, § 15355).

In addition, as stated in 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 project’s incremental effects are cumulatively considerable. (CCR, Title 14, Division 6, Chapter 3, § 15064(h)(5)).

Cumulative impact discussions for each environmental topic area are provided at the end of each technical analysis presented in Chapter 4 of this Draft EIR. As previously stated, and as set forth in the CEQA Guidelines, related projects consist of “closely related past, present, and reasonable, 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, § 15355).

Unless otherwise noted in each chapter, the geographic scope for the cumulative impact analysis is dictated by the discipline examined in that chapter and is, generally, within Kern County.

A list and description of past, present, and reasonably foreseeable projects within 1-mile of the project can be found in **Table 3-5, Cumulative Projects List**, below. Cumulative projects are shown in **Figure 3-11: Cumulative Projects**.

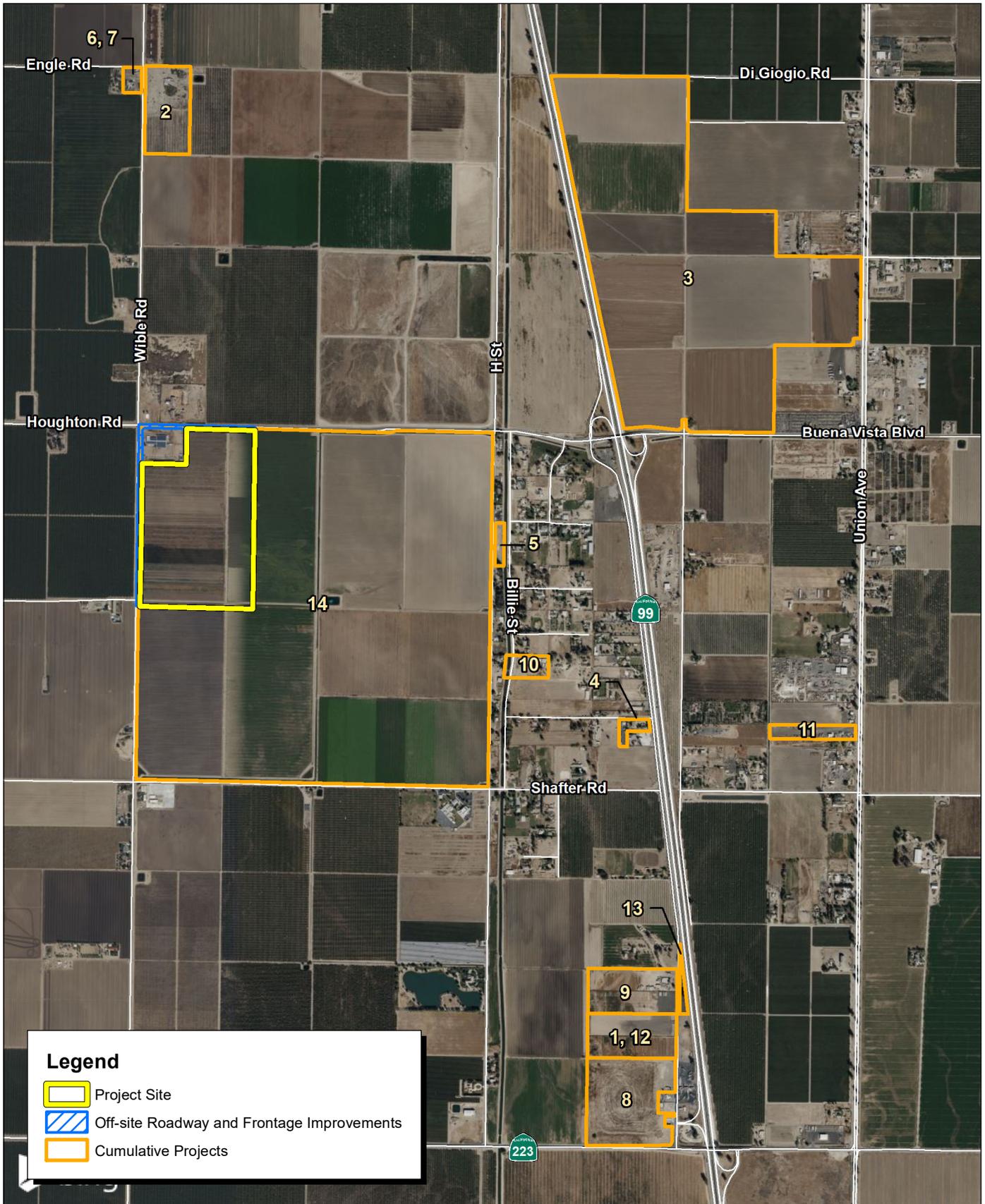
TABLE 3-5: CUMULATIVE PROJECTS LIST

Project Name/ CASE ID	Project Location	Case Type	Request	Project Site APN	Acreage
KERN COUNTY PROJECTS					
One Mile Project List					
1.	West side of Costajo Road between Shafter Road and Bear Mountain Boulevard	Precise Development Plan	Precise Development Plan, Map 143, (APN 185-321-20) to allow an industrial development.	185-321-20	
2.		Temporary CUP	Temporary CUP for an agricultural trucking facility.	184-150-423	20.02
3.			EIR: Commercial;– Development of an industrial park-warehouse, distribution and retail showrooms.	185-140-084	306.92
4.	14201 Costajo Street Bakersfield, CA		General Plan Amendment and zone change to allow a tire shop. The application did not contain what the proposed land use designation or zoning district.	185-382-421	2.43
5.	13338 South H Street Bakersfield, CA	CUP	CUP, Map 143-18 for Ag truck parking.	185-381-399	2.01
6.		CUP	Map 142, CUP 65, Modification–Ag Trucking Facility.	184-230-01	
7.		CUP	Map 142, CUP 65, Mod–Ag Trucking Facility.	184-230-01	
8.		GPA, ZCC	Map 143-19, GPA and ZCC–Commercial Development.	185-321-28	
9.	15451 Costajo Road Bakersfield, CA	PD	Map 143-19, PD–Truck Parking Garage.	185-321-19	

Project Name/ CASE ID	Project Location	Case Type	Request	Project Site APN	Acreage
10.		CUP	CUP to allow an event venue facility to be used for weddings, baptisms, birthdays, and quinceneras on an A-1 zone and RR general plan land use code on 4.94 acres.	185-382-44	
11.		CUP	Map 143-18, CUP–Ag Trucking Facility.	185-210-03	
12.			To develop a trucking facility in an M-1 PD Zone District.	185-321-20	
13.		GPA, ZCC	Map 143-19, GPA, ZCC–Request GPA ZCC from RIA- to LI and A-1 to M-1 to allow for a tire distribution shop on 1.56 acres.	185-322-120	1.54
14.	2909 Houghton Road Bakersfield, CA	GPA, ZCC, PD	GPA ZCC PD for Warehousing.	184-391-084	629.08

Notes:
CUP = Conditional Use Permit
GPA = General Plan Amendment
LMR = Low Medium Density Residential
PD = Precise Development
ZCC = Zone Code Change

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Source: Bing Aerial Imagery.



Figure 3-11
Cumulative Projects

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Chapter 4
**Environmental Setting, Impacts, and Mitigation
Measures**

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Chapter 4

Environmental Setting, Impacts, and Mitigation Measures

4.1 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

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4.1.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) discusses impacts associated with the potential for the proposed project to degrade the existing visual character or quality of the project site and its surroundings through changes in the existing landscape. Potential effects are evaluated relative to important visual features (e.g., scenic highways, scenic features) and the existing visual landscape and its users. Degradation of the 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.

Visual simulations were created by FirstCarbon Solutions (FCS) and illustrate various views of the project site after buildout of the proposed project. The terms and concepts used in the discussion below are used to describe and assess the aesthetic setting and impacts from the proposed project.

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 character and quality of the environment, a visual or aesthetic impact may occur.

Viewshed—defined as 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.

Key Observation Point—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.

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 (Federal Highway Administration [FHWA] 2015).

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 (e.g., hikers, equestrians, tourists, etc.) 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 unincorporated Kern County at the southern end of the San Joaquin Valley. The southern end of the San Joaquin Valley is surrounded by the Sierra Nevada Mountains to the east, the Tehachapi and San Emigdio Mountains along the south, and the Tumbler Range (part of the Coastal Ranges) along the west.

The landscape of the vast San Joaquin Valley region is dominated by agricultural operations, oil production/extraction, and pockets of urbanized areas, all of which have altered the once-natural, undeveloped landscape. The ground plane generally slopes downward from the Tehachapi and San Emigdio Mountains in the south, flattening into the San Joaquin Valley. The landscape through the San Joaquin Valley is mostly flat, lacking in any significant topographic relief and tends to be visually monotonous because of the repetitive expanse of agricultural and extractive land uses. There is little variety of vegetative covers (i.e., grazing grasses, croplands, solitary trees, and residential landscaping). While there are few panoramic views within the San Joaquin Valley, the edges of the San Joaquin Valley, including the southern end where the proposed project is located, do provide viewsheds including views of the Tehachapi, Sierra Nevada and San Emigdio Mountains to the east and the Temblor Mount Ranges to the west. From certain vantage points, as one nears the eastern, western, and southern edges of the valley floor, mountainous topographic features rise abruptly from the ground plane, adding visual variety and dramatic focal points; this is considered high quality adjacent scenery. These topographical elements are an excellent example of how adjacent scenery can enhance the visual quality of a landscape devoid of topographic relief and contribute positively to the area's scenic quality.

Over the years, Kern County has experienced a great deal of urbanization, resource extraction, and renewable energy development. Urbanization has resulted in the introduction of numerous man-made modifications into the viewshed, including residential, commercial, and industrial uses; roadways and highways; and utilities to support development. In addition, mineral, oil, and natural gas extraction activities are common to the region. Also, the County is a significant producer of renewable energy including hydroelectric, wind, solar, and geothermal power generation. Resource extraction and renewable energy production have both introduced many large-scale industrial facilities into the viewshed. Common visual elements include oil wells, storage tank batteries, access roads, and electrical and water conveyance infrastructure that tend to dominate the visual landscape in the western valley.

While urbanization and utility-scale development within the County have resulted in the development of large tracts of farmland, the pervasiveness of agricultural farming practices has helped maintain the County's agricultural and open space character. Generally, the aesthetic features of the regional visual environment are relatively uniform, with broad, flat landscapes leading to distant mountains and interspersed with urban, rural, and industrial development in varying densities and intensities.

Local Character

The project site is located approximately 1.3 miles south of the City of Bakersfield in unincorporated Kern County. The project site is located along Houghton Road, approximately 1 mile west of State Route (SR) 99 and 8.75 miles east of Interstate 5 (I-5). The Kern Island Canal and the unincorporated community of Alameda are located approximately 1 mile east of the project site.

There are no structures within the project boundaries; the vast majority of the project site itself (93.74 acres) consists of active agricultural fields. The project site is relatively flat, with an elevation of approximately 330 feet above mean sea level (amsl), sloping downward slightly to the southwest.

The project vicinity is characterized by cultivated agricultural uses (row crops and orchards) as well as agricultural processing facilities. The general area to the north and west of the project site is primarily used for agricultural processing facilities. The area to the south and east of the project site is predominantly an agricultural property used for row crops. Several rural access roads are located in the project area.

Scenic Highways

According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, there are no Officially Designated State Scenic Highways within Kern County (see **Section 4.1.3, Regulatory Setting**, below for more information on the State Scenic Highway Mapping System). The California Scenic Highway Mapping System identifies SR-14 north of Mojave and SR-58 east of Mojave as Eligible State Scenic Highways, which is distinct from an officially designated scenic designation. The project is located approximately 50 miles west of these Eligible State Scenic Highways and is separated from these highways by the Tehachapi Mountains. The nearest Officially Designated State Scenic Highway to the project site is SR-2, which is located over 60 miles to the southeast of the project site in Los Angeles County; the project site is separated from SR-2 by several mountain ranges, including the San Emigdio and San Gabriel Mountains.

In addition to the State Scenic Highway Mapping System, the Metropolitan Bakersfield General Plan Circulation Element includes goals and policies concerning the design and image of all roadways within the City. The Circulation Element does not define or designate any scenic routes within the City; however, it does include several policies concerning landscaping and image maintenance of all streets within the City. The Circulation Element implements the current standard set by Caltrans for all engineering designs.

The Kern County General Plan Circulation Element 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. As local scenic routes are not considered officially designated by the State, they are not analyzed below. The Kern County General Plan Circulation Element identifies several local scenic routes within Kern County; however, none of the local scenic routes (i.e., portions of SR-14, 58, 41, and State Highway 395) are in proximity to the project site. The Kern County General Plan Program EIR does identify I-5 as a scenic route and lists the sites of interest near this route, including the Edmonston Pumping Plant, Sebastian Indian Reservation, Fort Tejon, Top of Grapevine Pass, Frazier Park, Big Trees, Mt. Cerro Noroests (Mt. Abel), and Bitter Creek National Wildlife Refuge. This scenic route is located approximately 21.20 miles from the project site, beginning at Grapevine on I-5, extending south to Frazier Mountain Park Road, continuing west to SR-33, and turning north to Maricopa where it ends.

As part of the Kern County General Plan Circulation Element goals, policies, and implementation measures, Kern County adopted a Scenic Corridor Combining District to designate areas which contain unique visual and scenic resources as viewed from a major highway or freeway. The project site is not within a Scenic Corridor Combining District.

Lighting Environment

The project site is currently used as an active agricultural field with no existing site lighting. 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. There is minimal off-site lighting beyond small fixtures for individual structures, including agricultural support buildings and residences. Such structures are found throughout the site vicinity. There is no local roadway lighting. Daytime glare conditions are also minimal, being generally limited to sunlight reflecting from agricultural support structures, on- and off-road vehicles, holding ponds, and water retention basins.

4.1.3 Regulatory Setting

Federal

National Scenic Byways Program

The National Scenic Byways Program is part of the United States Department of Transportation (USDOT), FHWA. 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 (FHWA 2021a). There are no National Scenic Byways or All-American Roads within the vicinity of the project site (FHWA 2021b).

State

California Scenic Highway Program

Caltrans manages the California Scenic Highway Program, which was created in 1963 by the California legislature to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of lands adjacent to highways. The program includes a list of highways that are designated or eligible for designation as scenic highways. A highway may be designated as scenic based on certain criteria, including how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes on the traveler's enjoyment of the view. State laws governing the Scenic Highway Program are found in Sections 260 through 263 of the Streets and Highways Code.

As described in **Section 4.1.2, *Environmental Setting***, there are no Officially Designated State Scenic Highways within Kern County and the project site is not located directly adjacent to any Eligible State Scenic Highway. The nearest Officially Designated State Scenic Highway to the project site is SR-2, which is located over 60 miles to the southeast of the project site in Los Angeles County; the project site is separated from SR-2 by several mountain ranges, including the San Emigdio and San Gabriel Mountains.

The closest section of highway considered eligible for a State Scenic Highway designation is SR-58 and SR-14. As discussed above, the project is located approximately 50 miles west of these Eligible State Scenic Highways and is separated from these highways by the Tehachapi Mountains.

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 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 are also the City of Bakersfield adopted sphere of Influence (SOI). The policies, goals, and implementation measures

in the Metropolitan Bakersfield General Plan for aesthetics applicable to the proposed project are provided below.

The Land Use, Open Space, and Public Services and Facilities Elements of the Bakersfield Metropolitan General Plan evaluate the visual and aesthetic setting of Kern County and assess the potential for visual impacts.

The Land Use Element also provides a discussion regarding scenic routes. The Bakersfield Metropolitan Plan acknowledges that the County of Kern adopted the Scenic Highways Element in 1974, which was rescinded in 1992 to be replaced by the County of Kern General Plan Circulation Element. The Bakersfield Metropolitan General Plan follows the Kern County General Plan and its identified system of scenic routes, standards, and suggested methods of implementation designed to preserve scenic land.

The Bakersfield Metropolitan General Plan highlights three highways that could potentially be designated as scenic routes by Kern County. The three highways are listed below; however, as of this writing, the County has not designated any of them as scenic routes:

- Bakersfield-Glennville Road, beginning at the junction of James Road and the Bakersfield-Glennville Road and extending north to the northern boundary of Metropolitan Bakersfield;
- Highway 178 east of Alfred Harrell Highway to the eastern boundary of Metropolitan Bakersfield; and
- The Alfred Harrell Highway east of Panorama Drive and extending to Highway 178, then continuing south along Comanche Drive to Highway 58.

The Bakersfield Metropolitan General Plan provides general goals and policies for design features of development projects in order to reduce their impacts to scenic resources. The policies and implementation measures in the Bakersfield Metropolitan General Plan for aesthetic resources applicable to the project are provided below.

Land Use Element

Goals

- 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.

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 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 61** Coordinate a consistent design vocabulary between City and County for all public signage, including fixture type, lettering, colors, symbols, and logos.
- Policy 63** Encourage the use of creative and distinctive signage which establishes a distinctive image for the Planning area and identifies principal entries to the metropolitan area, unique districts, neighborhoods and locations.
- Policy 67** Develop a distinctive identity for the Bakersfield region which differentiates it as a unique place in the southern San Joaquin Valley.
- Policy 68** Capitalize on the Kern River, parks, steep hills, and canals as organizational elements for the Bakersfield area, creating activity corridors around which development and recreational uses can be focused.
- Policy 69** Allow variation in the use of street trees, shrubs, lighting, and other details to give streets better visual continuity and increased shade canopy.
- Policy 70** Provide for the installation of street trees which enhance pedestrian activity and convey a distinctive and high quality visual image.
- Policy 74** Encourage the establishment of design programs which may include signage, street furniture, landscape, lighting, pavement treatments, public art, and architectural design.
- Policy 79** Provide for an orderly outward expansion of new “urban” development (any commercial, industrial, and residential development have 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 84** Provide incentives to upgrade deteriorating residential, commercial and industrial uses when the property owner or resident cannot afford improvements.

Circulation Element

Policies

- Policy 12** Maintain the integrity of the circulation system.
- Policy 18** Provide and maintain landscaping on both sides and in the median of arterial streets within incorporated areas. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs; blank irrigation conduit only will be provided within the median of arterial streets.
- Policy 19** Provide and maintain landscaping on both sides of collector streets. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs.

Public Service and Facilities Element

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 1** Achieve consistency between current City standards and County policies for lighting in new development.
- Policy 4** Require developers to install street lighting in all new developments in accord with adopted City standards and County policies.

Kern County Zoning Ordinance

Chapter 19.81: Dark Skies Ordinance (Outdoor Lighting)

In November 2011, Kern County 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 excessive illumination or glare may constitute a nuisance. The ordinance provides requirements for outdoor lighting within specified unincorporated areas of Kern County in order 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.

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 contains the impact analysis relating to aesthetics 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 (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, where applicable.

Methodology

The proposed project's potential impacts related to aesthetics have been evaluated using a variety of resources. In general, the potential aesthetic, light, and glare impacts associated with development projects are evaluated on a qualitative basis to identify and assess any potential long-term adverse visual impacts on aesthetics and visual resources that might result from implementation of the project during construction and operation. This analysis is based on the approved visual assessment practices employed by the Bureau of Land Management (BLM) (BLM 1984). This method includes:

- 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 Geographic Information System (GIS) topographic and land use data, and United States Geological Survey (USGS) topographic data;
- Conducting a field visit in May 2023 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 four Key Observation Points (KOPs) within the project vicinity from which to evaluate potential visual impacts resulting from implementation of the proposed project;
- Preparing visual simulations of post-development views from the KOPs;
- Assessing the proposed project's impacts to sensitive views by applying the visual quality rating system to each of the visual simulations; and
- Proposing methods to mitigate any potentially significant visual impacts identified.

The evaluation of project impacts is based on professional judgment, analysis of the Kern County General Plan goals and policies related to visual resources, guidance provided by the BLM, and the significance criteria established by CEQA Guidelines Appendix G. More detailed information on the methodology behind the selection of KOPs and rating visual quality is provided below.

Selection of Key Observation Points

KOPs were selected by the project proponent to represent sensitive viewpoints. A KOP is a viewpoint that appropriately reflects an identified sensitive receptor and the impact that would result from implementation of the project. Potential 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.

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 motorists are likely to be on I-5, consisting of travelers and truckers (shipping and hauling), who would be less sensitive to changes in the view.

The project site is located in a rural area, and the nearest residence is located approximately 0.21 mile to the west. Additionally, a small cluster of homes stretches eastward to a distance of approximately 1 mile from the site, separated from the site by agricultural fields. The view from these residences toward the project site is not impeded by the surrounding agricultural land as it is relatively flat. No parks, or designated recreational areas are located in the project vicinity.

Six KOPs were selected for visual simulation to create post-development views. The evaluated KOPs are mapped on **Figure 4.1-1: Key Observation Point (KOP) Locations**, and described below in **Table 4.1-1, Key Observation Points**. The KOPs selected for simulation were chosen because they represent views that residents, motorists, and recreational users would experience from adjacent homes and local roadways. The selected KOPs represent views from the selected viewpoints as well as for other sensitive receptors throughout the project's vicinity.

Simulation Preparation

Visual simulations of the project from the identified KOPs identified in **Table 4.1-1, Key Observation Points** were prepared to provide a comparison of pre- and post-project conditions as well as context for qualitative description of the aesthetic changes that would result from the project. Photographs were taken during a site visit in May 2023 and simulations were prepared by FCS using the assumptions and methodologies listed below in **Table 4.1-2, Visual Simulation Methodology and Assumptions**, below.

TABLE 4.1-1: KEY OBSERVATION POINTS

KOP	Location	Representative Sensitive Viewers
1	From SR-99 off-ramp SR-99 Houghton Road, looking west toward the project site.	Motorists on the SR-99 off-ramp, exiting to Houghton Road, located approximately 1 mile away.
2	From South H Street, adjacent to a cluster of residences, looking west toward the project site.	Rural residents in the project vicinity traveling along South H Street, located approximately 0.67 mile away.
3	From Shafter Road, in front of General Shafter School, looking northwest toward the project site.	School students and employees at General Shafter School, located approximately 0.75 mile away.
4	From Wible Road, south of the project site, traveling north, looking northeast toward the project site.	Motorists on Wible Road as they approach the project site, traveling north, approximately 0.08 mile away.
5	From Houghton Road, west of the project site, traveling and looking east toward the project site.	Motorists on Houghton Road as they approach the project, traveling east, approximately 0.1 mile away.
6	From Wible Road, north of the project site, traveling and looking south toward the project site.	Motorists on Wible Road as they approach the project site, traveling south, approximately 0.2 mile away.



Figure 4.1-1: Key Observation Point (KOP) Locations

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TABLE 4.1-2: VISUAL SIMULATION METHODOLOGY AND ASSUMPTIONS

Photography from Key Observation Points	<ul style="list-style-type: none"> • Photos were taken on a clear day with scattered clouds in May 2023. • Nikon D3500 camera with an 18 mm zoom
Visual simulation assumptions	<ul style="list-style-type: none"> • Building height assumed at approximately 45 feet from finished grade to top of roof, plus between 4 feet and 10 feet to the top of parapet. • One substation is included, covering an area of roughly 270 feet by 465 feet. • Substation structures are assumed to be 15 feet in height; fencing assumed to be 8 feet in height. • Generic landscaping is assumed with 10-15 year mature trees
Methods	<p>Following data gathering phase, the process began with a determination of proposed camera locations. Upon review and approval of camera locations from the client, FCS coordinated the site photography and scheduled the initial site visit. Concurrently, FCS developed a computer model of the proposed project to illustrate the project’s appearance from different points of view. Natural and finished pads, including existing and surrounding contextual elements such as streets, telephone poles, lights, trees, terrain, and adjacent buildings (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 Computer Aided Design (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>

A comparison of existing views from the KOPs with visual simulations depicting visible project features, aided in determining project-related impacts. The simulations present a representative sample 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.

Rating Visual 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 superior because it allows the various landscape elements that comprise visual quality to be easily quantified and rated with a minimum of ambiguity or subjectivity.

According to this method, visual quality is rated according to the presence and characteristics of seven key components of the landscape. These components include landform, vegetation, water, color, adjacent scenery, scarcity, and cultural modifications.

1. The **landform** component of the visual quality rating criteria takes into account 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).

2. 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 (e.g., gnarled or wind beaten trees, Joshua trees, etc.).
3. 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.
4. The **color** component of the visual quality rating criteria considers the overall color(s) of the basic components of the landscape (e.g., soil, rock, vegetation, etc.). Key factors that are used when rating the color of scenery are variety, contrast, and harmony.
5. The **adjacent scenery** component of the rating criteria takes into account 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.
6. 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.
7. The **cultural modifications** component of the visual quality rating criteria takes into account 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. See **Table 4.1-3, Visual Quality Rating System**, for the point values associated with the various criteria.

TABLE 4.1-3: VISUAL QUALITY RATING SYSTEM

Key Factors	Rating Criteria and Score		
Landform	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.	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.	Low rolling hills, foothills, or flat valley bottoms; or few or no interesting landscape features.
	Score 5	Score 3	Score 1
Vegetation	A variety of vegetative types as expressed in interesting forms, textures, and patterns.	Some variety of vegetation, but only one or two major types.	Little or no variety or contrast in vegetation.
	Score 5	Score 3	Score 1
Water	Clear and clean appearing, still, or cascading white water, any of which are a dominant factor in the landscape.	Flowing, or still, but not dominant in the landscape.	Absent, or present but not noticeable.
	Score 5	Score 3	Score 1
Color	Rich color combinations, variety or vivid color; or pleasing contrasts in the soil, rock, vegetation, water or snow fields.	Some intensity or variety in colors and contrast of the soil, rock, and vegetation, but not a dominant scenic element.	Subtle color variations, contrast, or interest; generally mute tones.
	Score 5	Score 3	Score 1
Influence of Adjacent Scenery	Adjacent scenery greatly enhances visual quality.	Adjacent scenery moderately enhances overall visual quality.	Adjacent scenery has little or no influence on overall visual quality.
	Score 5	Score 3	Score 1
Scarcity	One of a kind; or unusually memorable, or very rare within region. Consistent chance for exceptional wildlife or wildflower viewing, etc.	Distinctive, though somewhat similar to others within the region.	Interesting within its setting but fairly common within the region.
	Score 5*	Score 3	Score 1
Cultural Modifications	Modifications add favorably to visual variety while promoting visual harmony.	Modifications add little or no visual variety to the area, and introducing no discordant elements.	Modifications add variety but are very discordant and promote strong disharmony.
	Score 2	Score 0	Score -4

NOTES:

* A rating greater than 5 can be given but must be supported by written justification.

Source: BLM 1986.

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 man-made features within a landscape do not necessarily detract from the scenic value. In fact, certain man-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. 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, project modifications 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. However, 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 two points or more but can be reduced to less than two 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 one 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 proposed 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.

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 would:

- a. Have a substantial adverse effect on a scenic vista.
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State Scenic Highway.

- c. 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.
- d. Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

Project Impacts

Impact 4.1-1: The proposed 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.

The aesthetic features of the existing visual environment surrounding the project site are relatively uniform, with predominantly agricultural fields and associated farming-related structures and small clusters of agricultural residences. The Sierra Nevada Mountains are visible in the distant background to the east of the project site and the Tehachapi and San Emigdio Mountains to the south of the project site, both of which provide a contrast to the uniform topography of the San Joaquin Valley and surrounding agricultural area. The views of these mountain ranges would be considered the dominant visual features surrounding the project site.

While there are no officially designated scenic vistas, the viewshed of the Sierra Nevada Mountains seen by persons traveling north on SR-99 and of the Tehachapi and San Emigdio Mountains seen by persons traveling south on SR-99 in passenger vehicles could be considered a scenic vista because of their scenic quality. Although views of the existing agricultural land such as row crops and orchards that comprise the project site and surrounding land may possess qualities that the local community may perceive as scenic, they do not constitute scenic vistas as defined by Kern County for purposes of this environmental review. The project site is located approximately 1 mile west of SR-99, and would not therefore be in the viewshed of persons traveling in passenger vehicles on SR-99 looking east toward the Sierra Nevada Mountains or south toward the Tehachapi and San Emigdio Mountains. Similarly, views from I-5 of the Sierra Nevada Mountains as well as the Tehachapi and San Emigdio Mountains could also be considered a scenic vista; however, the site is located approximately 8.75 miles from I-5, too far to affect the overall viewshed of the surrounding mountain ranges for travelers. 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 would be required.

Level of Significance

No impact would occur.

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

According to Caltrans' California Scenic Highway Mapping System, there are no Officially Designated State Scenic Highways in the vicinity of the project area (Caltrans 2018). The nearest Officially Designated State Scenic Highway to the project site is SR-2, which is located over 60 miles to the southeast of the project site in Los Angeles County; the project site is separated from SR-2 by several mountain ranges, including the Tehachapi and San Gabriel Mountains. The proposed project would have no effect for travelers along this Scenic Highway.

The closest highways that are eligible for designation as a State Scenic Highway are portions of SR-58 and SR-14. The project is located approximately 50 miles west of these Eligible State Scenic Highways and is separated from these highways by the Tehachapi Mountains. Given this distance and intervening topography, the proposed project would not be visible from any Officially Designated or Eligible State Scenic Highway.

Therefore, construction of the proposed project would not change the viewshed from any Officially Designated or Eligible State Scenic Highway and therefore there would be no impact.

Mitigation Measures

No mitigation would be required.

Level of Significance

No impact would occur.

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.)

As described in **Chapter 3, Project Description**, and above under **Section 4.1.2, Environmental Setting**, existing development in the project vicinity includes agricultural uses, rural access roads, scattered rural residences, cattle ranching and maintenance facilities, and gravel and sand extraction. As the project is located within a nonurbanized area, the analysis below will focus on whether development of the project would substantially degrade the existing visual character or quality of public views of the site and its surroundings.

Construction

Construction activities associated with the project would create temporary changes in views of the project site. Site preparation during construction of the proposed project may include removal of vegetation and topsoil, compactions of subgrade, and shaping of ditches and swales. This phase of construction would include daily use of dozers, water trucks, graders, flatbed trucks, skid steer, front-end loaders, roller compactors, pickups, backhoe, foundation delivery truck, module delivery truck, tracker delivery truck, concrete truck, and gravel trucks and introduce this construction equipment into the viewshed of all viewer groups. During construction, there would be multiple crews working on the site with various equipment. The influx of construction vehicles, equipment, and worker vehicles would create visible contrast within

the rural setting of project site. However, vehicles, equipment, and construction activity would be temporary in nature (approximately 16 month total with 20 days of grading prior to the start of construction) and would be limited to active areas of construction as opposed to the entirety of the project site at the same time.

The lands surrounding the site are predominantly used for crops, grazing, and other agricultural facilities. Heavy agricultural equipment is visible on the site. Other uses in the project area include gas and oil extraction and scattered clusters rural residences. Viewers traveling along roads in proximity to the project site are accustomed to seeing heavy machinery associated with agricultural activities. In addition, the visual effects associated with the presence of construction vehicles, equipment, and workers in the project area landscape would be sporadic, limited in duration and would be spatially limited at any given time to the active area of construction. The construction of the proposed project would change the views from public roads; however, these alterations would not substantially degrade the quality of public views. Therefore, impacts to existing visual character or quality of the project site and surrounding area during construction of the proposed project would be less than significant.

Operation

In order to determine whether the proposed project would substantially degrade the existing visual quality of the project site, this analysis compares the existing visual setting with visual simulations of the post-project visual conditions. As described above, six (6) KOPs were selected for visual simulation. These KOPs are representative of views that would be experienced from numerous sensitive receptor locations.

Visual simulations are provided in **Figure 4.1-2** through **Figure 4.1-7**. KOPs are described in **Table 4.1-2, Visual Simulation Methodology and Assumptions**, above. Impacts associated with operation of the proposed project would vary by viewer location and are discussed below by KOP. The rating system and impacts methodology are discussed in the *Rating Visual Quality* section above.

KOP 1. Figure 4.1-2: *KOP 1–Existing and Simulated Views from SR-99 Off-ramp to Houghton Road, Looking West Toward the Project Site*, shows views from the SR-99 off-ramp to Houghton Road, traveling west, located approximately 1.1 mile east of the project site. This KOP reflects views to the project site that would be experienced by motorists exiting SR-99 to Houghton Road traveling toward the project site. The pre-development views from KOP 1 shows that the landscape is relatively flat, with several trees, streetlights, and power line poles in the foreground, surrounding a small cluster of rural residences just southwest of the off-ramp. These trees almost completely screen the residences from the roadway from this viewpoint. The post-development view from KOP 1 (see **Figure 4.1-2**) would include minimal visual modifications to the viewshed from this location. Existing and proposed trees and other cultural modifications would screen the majority of the building and associated development; therefore, the proposed project would not be a dominant feature from this viewpoint due to distance. As discussed in **Table 4.1-6**, the pre-development score is 10, and the post-development score is 9. There would be less than significant visual impacts from KOP 1.

KOP 2. Figure 4.1-3: *KOP 2–Existing and Simulated Views from South H Street, Looking West Toward the Project Site*, shows views from the roadway directly in front of a cluster of residences west of the project site, looking west toward the site. This KOP accurately reflects the view that the closest cluster of residences to the project site would experience (located approximately 1 mile away). The pre-development views from KOP 2 depict broad and flat terrain covered with green row crops in the foreground, middle ground, and distance. Note that the color of the crops and grass changes seasonally and would be green in color during the spring and part of the winter with the golden hue prominent during the summer and fall. In the far

distance, there is a faint outline of the Temblor Mountain Range with limited visibility in the background to the southwest. The post-development view from KOP 2 (see **Figure 4.1-3**) would be dominated by the project development. It would also introduce light beige, gray, and light blue color to the earth tones present. The development would partially obscure mountain views. As discussed in **Table 4.1-5**, the pre-development score is 10, and the post-development score is 2. Therefore, visual impacts from KOP 2 would be potentially significant.

KOP 3. Figure 4.1-4: *KOP 3–Existing and Simulated Views from General Shafter School along Shafter Road, Looking Northwest toward the Project Site*, shows views from Shafter Road looking northwest toward the project site from the front of General Shafter School. This KOP accurately reflects views to the project site (located approximately 0.66 mile away) that students, parents, and school employees would experience from the front entrance of General Shafter School. The pre-development view from KOP 3 depicts broad and flat terrain with low cropland in the foreground and middle ground. Note that the color of the cropland changes seasonally, and contains varying proportions of green, brown, and golden hues. There are some agricultural structures visible in the distant background, and no mountains are visible in the distance from this viewpoint at the time the KOP was documented. The post-development view from KOP 3 (see **Figure 4.1-4**) would be moderately affected by the project development in the background. It would introduce light beige, gray, and blue colors from the buildings and green tones from the proposed landscaping. The project development would constitute a less than significant cultural modification to this viewpoint. As discussed in **Table 4.1-6**, the pre-development score is 6, and the post-development score is 2. Therefore, there would be potentially significant visual impacts from KOP 3.

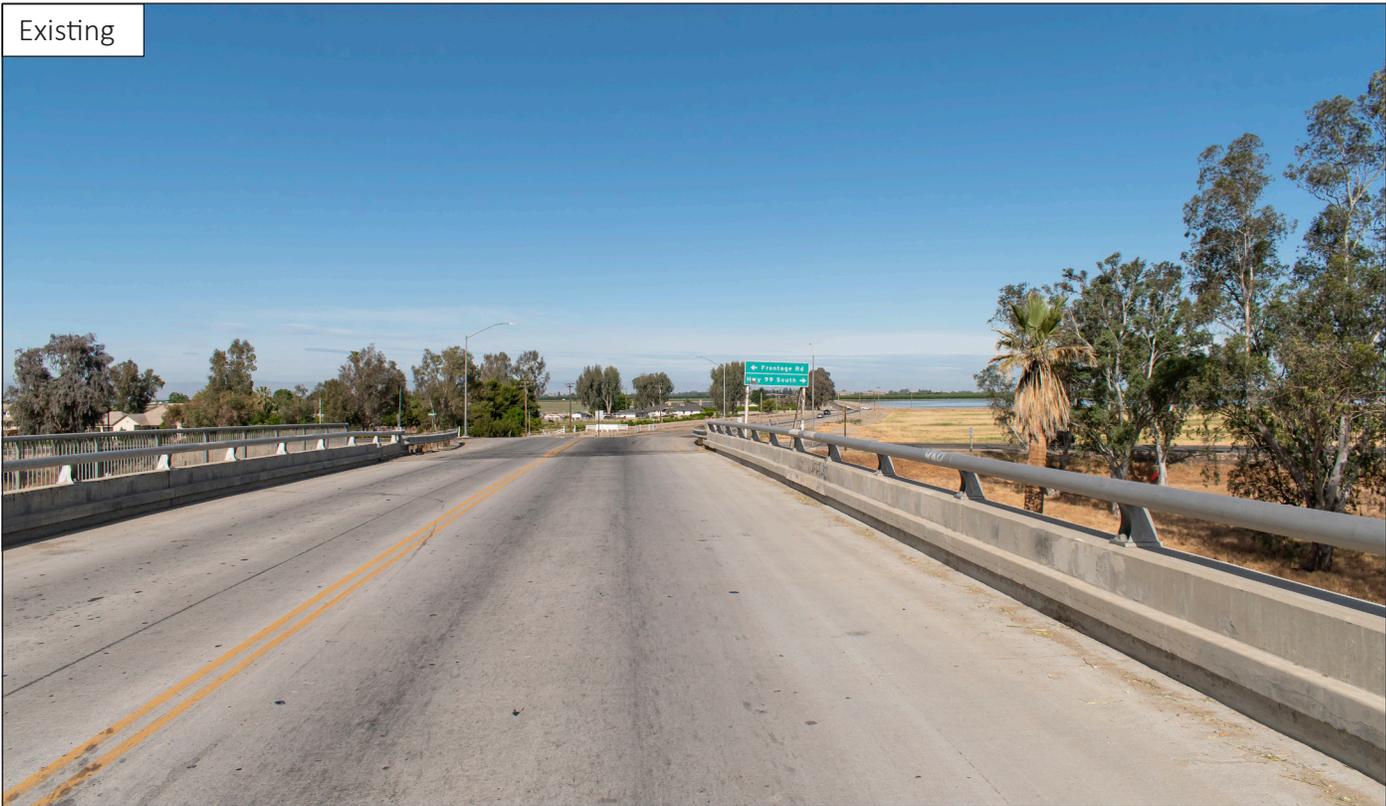
KOP 4. Figure 4.1-5: *KOP 4–Existing and Simulated Views from Wible Road looking northeast toward the Project Site*, shows views from Wible Road, south of the project site traveling north, looking northeast toward the project site. This KOP accurately reflects views of the project site (located approximately 0.1 mile away) that motorists would have as they approach the proposed project while traveling north on Wible Road. The pre-development views from KOP 4 depict broad and flat terrain with low lying green crops in the foreground and the faint outline of a mountain range in the distance northeast of the roadway where the project is proposed. Note that the color of the row crops changes seasonally and would be green in color during the spring and part of the winter with the golden hue prominent during the summer and fall. There are some agricultural structures visible in the distant background. The post-development view would be dominated by project development. The project building and other project components would attract attention and create form, line, and color contrast despite the landscaping included to the screen the project development. Additionally, the project development would obscure distant views of mountains in the background almost completely. As discussed in **Table 4.1-7**, the pre-development score is 13, and the post-development score is 4. Therefore, there would be potentially significant visual impacts from KOP 4.

KOP 5. Figure 4.1-6: *KOP 5–Existing and Simulated Views from Houghton Road looking southeast toward the Project Site*, shows views from Houghton Road, west of the project site traveling east, looking southeast toward the project site. This KOP accurately reflects views of the project site (located approximately 0.1 mile away) that motorists would have as they approach the proposed project while traveling east on Houghton Road. The foreground and middle ground contain an orchard west of the project site along Houghton Road and Wible Road, with trees tall enough to screen any development in the distance. There are prominent views of the Sierra Nevada Mountains from this viewpoint that would be dominant to motorists. The proposed project would not be visible from the post-development view. As discussed in **Table 4.1-8**, the pre-development score is 14, and the post-development score is 14. Therefore, there would be no visual impacts from KOP 4.

KOP 6. Figure 4.1-7: *KOP 6–Existing and Simulated Views from Wible Road looking South toward the Project Site*, shows views from Wible Road, north of the project site traveling south, looking toward the project site. This KOP accurately reflects views of the project site (located approximately 0.3 mile away) that motorists would have as they approach the project site while traveling south on Wible Road. The foreground is dominated by Wible Road and two orchards that flank either side of the roadway encompass much of the middle ground. Some agricultural structures are visible in the distance to the east of Wible Road. There are prominent views of the Tehachapi and San Emigdio Mountains from this viewpoint that would be dominant to motorists. The project development would represent a somewhat dominant feature in the post-development view. The project building and other project components would attract attention and create form, line, and color contrast despite the proposed landscaping included to the screen the project development. While the project development would obscure distant views of mountains in the background, the majority of the mountain range would remain highly visible. Furthermore, a portion of the view of the proposed project would be obstructed by existing immature trees and an existing orchard development and farm management sign. As discussed in **Table 4.1-9**, the pre-development score is 13, and the post-development score is 7. Therefore, there would be potentially significant visual impacts from KOP 6.

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Existing



Proposed



Figure 4.1-2: KOP 1
Existing and Simulated Views from SR-99 Off-ramp
to Houghton Road, Looking West Toward the Project Site

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TABLE 4.1-4: VISUAL QUALITY RATING ANALYSIS–KOP 1

Sensitive Receptor: Motorists on the SR-99 off-ramp, exiting to Houghton Road

Pre-development and post-development conditions are depicted in **Figure 4.1-2**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
Landform	2	1	1	Less than Significant Impact
<i>Explanation:</i>	Relatively flat terrain covered with pavements from the existing street and bridge, trees, power line poles, and streetlights in the foreground. There are mostly obscured views of the mountain range to the southwest in the background, screened by a cluster of trees.	The relatively flat topography of the area would not be noticeably modified by project development; The proposed development would be predominantly obscured by distance and trees, and views of the mountains are distant landforms would be minimally affected by the proposed development.		
<i>Detail:</i>	The foreground from this KOP is dominated by the existing roadway, power line poles, and streetlight infrastructure and middle ground is dominated by flat landforms, mostly obscured by trees. In the distance, flat, open rural land is visible to the northwest and southwest. Because of the distance, the proposed development would be seen at a comparable height as surrounding vegetation, and would not noticeably interrupt views of the mountains. Therefore, the post-development score would result in less than significant impacts to landforms resulting from project operations.			
Vegetation	3	3	0	No Impact
<i>Explanation:</i>	The foreground is dominated by the roadway, power lines, and streetlight infrastructure, but trees are visible in the middle ground and low croplands are visible in the distance to the southwest. Similar species present in the visible landscape.	Views of the clusters of trees would be retained. The distant cropland vegetation would be partially obscured by the project buildings, however, a large portion of the cropland that foregrounds the proposed development would be retained. Additionally, proposed development would include new trees and shrubbery.		
<i>Detail:</i>	Both the pre- and post-development views depict low cropland vegetation to the southwest and exposed soil and a large irrigation basin to the northwest. The proposed development would partially obscure views of distant cropland and scrub in the background, however, cropland in the foreground would remain visible. The proposed development also includes trees and shrubbery to blend in with the existing view. Therefore, the post-development score would remain the same, resulting in no impact to vegetation resulting from project operations.			

Sensitive Receptor: Motorists on the SR-99 off-ramp, exiting to Houghton Road

Pre-development and post-development conditions are depicted in **Figure 4.1-2**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
Water	2	2	0	No Impact
<i>Explanation:</i>	No water is present on the site. Water is visible from this view in the form of a large irrigation basin, north of the site across Houghton road.	Project development would not introduce water to or remove water from the visible landscape.		
<i>Detail:</i>	The irrigation basin would remain visible in pre- or post-development views, as it is not a part of the project site No impacts to water features would occur.			
Color	2	1	1	Less than Significant Impact
<i>Explanation:</i>	Sky and pavement are the main colors from KOP 1 viewpoint. Shades of brown and green on the valley floor across the middle ground and distance (associated with soil and vegetation).	The proposed development would partially obscure the cropland and scrub to the southwest, which characterized by shades of green. However, the proposed project would include new trees and shrubbery, which would introduce new elements of green tones. The project buildings would introduce light beige and light blue colors.		
<i>Detail:</i>	Development of the proposed project would neither impact the pavement, which is characterized by tones of gray and the most dominant color from this viewpoint, in the foreground nor affect the view of the croplands and the irrigation basin to the northwest, characterized by shades of brown and blue. The tones of green that dominate the background to the southwest would be partially obscured, altering the existing display of colors. However, the proposed project would include green trees and shrubbery, which would add additional green tones to this viewpoint. The light beige, gray, and light blue colors introduced by the project development could represent a stark contrast to the sky or surrounding area due to distance. Existing and proposed trees would soften this contrast. Therefore, the post-development score would be reduced to 1, resulting in a less than significant impact color resulting from project operations.			
Adjacent Scenery	2	2	0	No Impact
<i>Explanation:</i>	Distant, mostly obscured views of the mountains to the southwest slightly enhances the view.	The distant, mostly obscured views of the mountains to the southwest would not be substantially obstructed by project components.		

Sensitive Receptor: Motorists on the SR-99 off-ramp, exiting to Houghton Road

Pre-development and post-development conditions are depicted in **Figure 4.1-2**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
<i>Detail:</i>	The proposed project would not obscure views of the mountain range in the distance and would not have a significantly greater impact beyond the obstruction from existing vegetation. Therefore, the post-development score would remain the same, resulting in no impacts to adjacent scenery due to project development.			
Scarcity	1	1	0	No Impact
<i>Explanation:</i>	The available view is limited by the trees, roadways, and streetlights. There are no unique aspects from this view. Similar views exist throughout the region.	While the views from this viewpoint would be modified by project operation, there are no existing unique aspects from this view, and similar views exist throughout the region. Any impacts caused by the proposed project would be minimal due to distance.		
<i>Detail:</i>	Existing views offered from SR-99 off-ramp are typical of the area. Visible features are not particularly unique or unusual. Alteration of the landscape to accommodate the proposed project would be visible from this KOP but would result in less than significant impacts to view scarcity as a result of the proposed project.			
Cultural Modifications	-2	-1	-1	Less than Significant Impact
<i>Explanation:</i>	The landscape contains cultural modifications resulting from the paved roadway, power line poles, streetlights, and bridge that dominate the foreground, which contrasts in color and character with the low lying croplands and scrub in the distance.	Project development would not result in cultural modifications resulting to the paved roadway, power line poles, streetlights, and bridge that dominate the foreground. The proposed development would introduce a new modification; however, it is not significant due to distance.		
<i>Detail:</i>	Existing cultural modifications and the features are already not compatible with rural elements in the surrounding area. Project components would be added to the landscape, which would substantially obscure limited, distant views of the mountains to the southwest, however the proposed project would obscure some of the existing modifications through added vegetation and landscaping. Therefore, the post-development score would be increased to -1, with impacts caused by project operation being less than significant due to project distance.			
Totals:	10	9	1	Less than Significant Impact

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Existing



Proposed



Figure 4.1-3: KOP 2
Existing and Simulated Views from South H Street
Looking West Toward the Project Site

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TABLE 4.1-5: VISUAL QUALITY RATING ANALYSIS–KOP 2

Sensitive Receptor: Rural residents in the project vicinity view of the project site.
 Pre-development and post-development conditions are depicted in **Figure 4.1-3**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
Landform	2	0	2	Potentially Significant Impact
<i>Explanation:</i>	In the foreground and middle ground, broad, flat terrain is covered with exposed soil, green cropland, and green ground cover in the distance. The faint outline of the mountain range can be seen in the distance behind cloud cover.	The project development would not affect the broad, flat terrain in the foreground and middle ground. However, the project development and accompanying vegetation would become the main focal point of KOP 2 and partially obstruct views of the distant cropland and mountain range.		
<i>Detail:</i>	The pre- and post-development view is dominated by flat valley terrain in the foreground and middle ground and a distant mountain range and cropland in the background. Development of the proposed project would obscure views of the mountains in the distance. It would become the most prominent feature from this viewpoint. As such, project development would noticeably modify landforms in the view. Therefore, the post-development score would be reduced to 0, resulting in a significant impact to landform resulting from project operations.			
Vegetation	1	0	1	Less than Significant Impact
<i>Explanation:</i>	Low, exposed soil and green cropland characterizes this viewpoint. Similar species present in the visible landscape.	Project development would removal a small portion of the existing vegetation; however, it also introduces new trees and shrubbery as part of its development.		
<i>Detail:</i>	Both the pre- and post-development views depict low, exposed soil and cropland vegetation covering the valley floor. Project development would remove a small amount of cropland vegetation in the background. However, the proposed project would include trees and shrubbery which would add to the visual interest of viewpoint. Therefore, a less than significant impact to vegetation would occur.			
Water	0	0	0	No Impact
<i>Explanation:</i>	No water is visible on-site or in the surrounding area.	Project development would not introduce water to or remove water from the visible landscape.		
<i>Detail:</i>	Water features are not included in pre- or post-development views. No impacts to water features would occur.			

TABLE 4.1-5: VISUAL QUALITY RATING ANALYSIS–KOP 2

Sensitive Receptor: Rural residents in the project vicinity view of the project site.
 Pre-development and post-development conditions are depicted in **Figure 4.1-3**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
Color	2	1	1	Less than Significant
<i>Explanation:</i>	Shades of brown and green are displayed by the soil and roadway in the foreground and middle ground; green is displayed by vegetation in the background. There are extremely faint, dark brown mountains in the distance.	The beige color of the project buildings would contrast with the earth tones present in the foreground middle ground. Color contrast would be enhanced when viewed against the backdrop of a blue sky.		
<i>Detail:</i>	Pre- and post-development views are and would continue to be dominated by earth tones and grays. The shades of brown and gray displayed in the foreground and middle ground would not be impacted by the project, However, the proposed project would obscure faint gray mountains in the background as well as introduces green tones from trees and shrubbery and light blue, gray, and beige tones from the building. Therefore, the post-development score would be reduced to 1, resulting in a less than significant impact to color resulting from project operations.			
Adjacent Scenery	2	1	1	Less than Significant Impact
<i>Explanation:</i>	Distant, extremely faint views of the mountains in the distance slightly enhances the view.	The distant views of the mountains would remain partially visible after the project’s development.		
<i>Detail:</i>	The proposed project would modify and obstruct views of adjacent scenery, specifically the faint views of the mountains in the distance. Therefore, the post-development score would be reduced to 1, resulting in a less than significant impact to adjacent scenery from project operations.			
Scarcity	2	1	1	Less than Significant Impact
<i>Explanation:</i>	As the views of the distant mountains would only be visible on a clear day, there are no unique aspects from this view. Similar views exist throughout the region.	The background would be modified by the introduction of the proposed project, partially obscuring views of the mountains and becoming a primary focal point of this viewpoint.		

TABLE 4.1-5: VISUAL QUALITY RATING ANALYSIS–KOP 2

Sensitive Receptor: Rural residents in the project vicinity view of the project site.
 Pre-development and post-development conditions are depicted in **Figure 4.1-3**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
<i>Detail:</i>	The pre-development view is typical of views available throughout the area and landforms and vegetation are not particularly unique or unusual. Landscape modification resulting from project development would become the primary point of interest in this landscape. However, similar views exist throughout the region. Therefore, the post-development score would be reduced to 1, resulting in a potentially significant impact to scarcity resulting from project operations.			
Cultural Modifications	1	-1	2	Potentially Significant Impact
<i>Explanation:</i>	The foreground contains views of roadway pavement. Cultural modifications are agricultural/industrial in nature and are not easily perceptible from this KOP.	Project development would add a large industrial building that would become the focal point of the viewshed from this KOP. This modification to the viewshed would present heavy contrast to the low-profile structures in the project area.		
<i>Detail:</i>	Existing cultural modifications are not particularly prominent, and the features are compatible with rural elements in the surrounding area, including cropland interspersed rural houses, powerlines, and distant mountains. The industrial building created by the proposed project would contrast greatly with the surrounding agricultural area. Therefore, the post-development score would be reduced to -1, resulting in a potentially significant impact to cultural modifications resulting from project operations.			
Totals:	10	2	8	Potentially Significant Impact

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Figure 4.1-4: KOP 3
Existing and Simulated Views from General Shafter School along
Shafter Road, Looking Northwest Toward the Project Site

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TABLE 4.1-6: VISUAL QUALITY RATING ANALYSIS–KOP 3

Sensitive Receptor: Students and school employees at General Shafter School
 Pre-development and post-development conditions are depicted in **Figure 4.1-4**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
Landform	1	0	1	Less than Significant Impact
<i>Explanation:</i>	This viewpoint contains broad, flat terrain in the foreground and middle ground with no views of mountains at the time the KOP was documented.	The flat topography of the area would be noticeably modified by project development in background, becoming the dominant figure in this viewpoint.		
<i>Detail:</i>	Broad and flat landforms dominate the foreground and middle ground of the visible landscape. However, the project development would create a dominant landform at the center of this viewpoint, obscuring the rest of the flat terrain behind it. Therefore, the post-development score would be reduced to 0, resulting in a less than significant impact to landform resulting from project operations.			
Vegetation	1	1	0	No Impact
<i>Explanation:</i>	Low crop land with very little variation in vegetation is visible.	Development of the proposed project would not impact much of the existing vegetation and it would remain visible in the foreground and middle ground; however, it also introduces new trees and shrubbery as part of its development.		
<i>Detail:</i>	The visual effects of vegetation removal would not be visible from this view. Further, the proposed project would introduce trees and shrubs around the project buildings, which would add additional vegetation to the viewpoint. Therefore, no impacts to vegetation would occur.			
Water	0	0	0	No Impact
<i>Explanation:</i>	No water is visible on-site or in the surrounding area.	Project development would not introduce water to or remove water from the visible landscape.		
<i>Detail:</i>	Water features are not included in pre- or post-development views. No impacts to water features would occur.			

TABLE 4.1-6: VISUAL QUALITY RATING ANALYSIS–KOP 3

Sensitive Receptor: Students and school employees at General Shafter School
 Pre-development and post-development conditions are depicted in **Figure 4.1-4**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
Color	1	0	1	Less than Significant Impact
<i>Explanation:</i>	The foreground and middle ground contain low cropland. As mentioned in Table 4.1-6 KOP-2 , colors of the croplands would feature green in the winter and spring, and golden hues in the summer and autumn.	The bright color of the project buildings would contrast with the earth tones displayed by terrain and vegetation in the foreground and middle ground. Trees and shrubs included in the proposed project would add shade shades of green to viewpoint.		
<i>Detail:</i>	The foreground and middle ground are dominated by shades of green, yellow and brown, as well as gray from the paved roadway. The project development would not impact the view of the croplands and would provide a stark contrast to the rest of the landscape with the introduction of light beige and blue hues. Color contrast would be enhanced when viewed against the backdrop of a blue sky. At KOP 3, the project components would be a moderately dominant feature of the landscape due to its distance and surrounding vegetation. Therefore, the post-development score would be reduced to 0, resulting in less than significant impact to color resulting from project operations.			
Adjacent Scenery	1	1	0	No Impact
<i>Explanation:</i>	The adjacent scenery has no influence on the overall visual quality from this viewpoint. There are no views of hills or mountain from this KOP.	Because there is no influential adjacent scenery from this viewpoint, the implementation of the proposed project would not impact adjacent scenery.		
<i>Detail:</i>	Because views of hills and mountains are not available from this KOP, visibility of adjacent scenery would not be altered by project development. There would be no impact.			
Scarcity	1	0	1	Less than Significant Impact
<i>Explanation:</i>	There are no unique aspects from this view. Similar views exist throughout the region.	The background would be modified by the introduction of the project development, but these views are not unique compared to the region.		
<i>Detail:</i>	Landscape modification resulting from project development would be stark in contrast to the rest of the landscape. However, the view from this KOP is typical of views available throughout the area and landforms and vegetation are not particularly unique or unusual. Therefore, the post-development score would be			

TABLE 4.1-6: VISUAL QUALITY RATING ANALYSIS–KOP 3

Sensitive Receptor: Students and school employees at General Shafter School
 Pre-development and post-development conditions are depicted in **Figure 4.1-4**.

Rated Feature	Pre-development Condition	Post-development Score	Difference in Scores	Impact Significance
	reduced to 0, resulting in less than significant impact to scarcity resulting from project operations.			
Cultural Modifications	1	0	1	Less than Significant Impact
<i>Explanation:</i>	The landscape contains partial views of a roadway in foreground. Croplands dominate this KOP, with rural houses and telephone poles interspersed in the distant middle ground. These structures constitute cultural modifications that conflict with the croplands that dominate this KOP. However, these facilities are in the distance and do not dominate the KOP.	The proposed project would introduce numerous manufactured elements to the background, constituting significant cultural modifications.		
<i>Detail:</i>	The landscape contains cultural modifications resulting from the paved roadway in the foreground and various agricultural facilities in the distance. The proposed project would introduce substantial manufactured elements that would be prominent in the landscape from this KOP. However, portions of the project buildings would be screened by trees and shrubbery included in the project. Therefore, the post-development score would be reduced to 0, resulting in a less than significant impact resulting from project operations.			
Totals:	6	2	4	Potentially Significant Impact

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Figure 4.1-5: KOP 4
Existing and Simulated Views from Wible Road
Looking Northeast Toward the Project Site

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TABLE 4.1-7: VISUAL QUALITY RATING ANALYSIS–KOP 4

Sensitive Receptor: Motorists as they approach the project site traveling north.
 Pre-development and post-development conditions are depicted in **Figure 4.1-5.**

Rated Feature	Pre-Development Condition	Post-Development Score	Difference in Scores	Impact Significance
Landform	3	1	2	Potentially Significant Impact
<i>Explanation:</i>	Flat terrain with paved road dominates most of the foreground, active agriculture/low lying greenery east of the road, and exposed soil and trees to west of the road. Low and dark silhouettes of mountains to the northeast in the background. Martin Feed Store and various agricultural processing structures visible in the distant middle ground.	The flat topography of the area would be noticeably modified by project development. The project development would become the dominant landform from this KOP and completely obscure the mountains to the northeast in the background.		
<i>Detail:</i>	Flat landforms with active agriculture and a paved road occupy the foreground and middle ground landscape. The distant mountains display a unique conical form that adds interest to the low and flat landscape. However, project development would become the focal point from this KOP and would substantially alter or modify existing landforms in the view. The proposed project would remove a large portion of the cropland in the foreground and completely block the view of the mountains. Therefore, the post-development score would be reduced to 1, resulting in a potentially significant impact to landform resulting from project operations.			
Vegetation	3	3	0	Less than Significant Impact
<i>Explanation:</i>	The immediate foreground is dominated with paved roadway with exposed soil and crop land to the east and west of the roadway. A large field of agricultural trees are present the west side of the road.	The development of the proposed project would not remove or impact the roadway, or greenery to the west of the road, however it would be constructed on exposed dirt to the east of the roadway. The proposed project would add additional trees and shrubs to screen the proposed warehouse.		
<i>Detail:</i>	The visual effects of vegetation removal would not be dominant from this view. The most dominant vegetation would remain in the foreground. Further the proposed project would contribute trees and shrubs to diversify the types of vegetation from this viewpoint. Therefore, the post-development score would remain at 3, resulting in no impact to vegetation resulting from project operations.			

TABLE 4.1-7: VISUAL QUALITY RATING ANALYSIS–KOP 4

Sensitive Receptor: Motorists as they approach the project site traveling north.
 Pre-development and post-development conditions are depicted in **Figure 4.1-5**.

Rated Feature	Pre-Development Condition	Post-Development Score	Difference in Scores	Impact Significance
Water	0	0	0	No Impact
<i>Explanation:</i>	No water is visible on-site or in the surrounding area.	Project development would not introduce water to or remove water from the visible landscape.		
<i>Detail:</i>	Water features are not included in pre- or post-development views. No impacts to water features would occur.			
Color	2	0	2	Potentially Significant Impact
<i>Explanation:</i>	Foreground and middle ground is dominated by gray, paved roadway and flanked with brown soils and green vegetation, while the mountains in the background are hazy dark gray/blue.	The project development would introduce industrial materials and metallic colors as well as green tones from landscaping to the viewshed that would greatly contrast with the existing colors.		
<i>Detail:</i>	The foreground is dominated by shades of yellow, gray, green, and brown. Introduction of the project development would be highly visible and introduce blue and gray colors. As such, color contrast would be substantial from KOP 4. Therefore, the post-development score would be reduced to 0, resulting in a potentially significant impact to color resulting from project operations.			
Adjacent Scenery	2	0	2	Potentially Significant Impact
<i>Explanation:</i>	Views are moderately enhanced by low dark mountains in the background.	The majority of the distant mountains would no longer be visible with the development of the project.		
<i>Detail:</i>	Visibility of the mountains would be substantially altered by project development. Therefore, the post-development score would be reduced to 0, resulting in a potentially significant impact to adjacent scenery resulting from project operations.			

TABLE 4.1-7: VISUAL QUALITY RATING ANALYSIS–KOP 4

Sensitive Receptor: Motorists as they approach the project site traveling north.
 Pre-development and post-development conditions are depicted in **Figure 4.1-5.**

Rated Feature	Pre-Development Condition	Post-Development Score	Difference in Scores	Impact Significance
Scarcity	2	1	1	Less than Significant Impact
<i>Explanation:</i>	Distant mountains add interest to the scene but are visible throughout the local area.	Views of the distant mountain would be substantially altered by the project operation; however, clearer views of the mountains are available in other locations in the project vicinity.		
<i>Detail:</i>	Views of distant mountains are available in other locations and are not unique to KOP 4. However, project development would substantially affect the availability of long views in the local area. Therefore, the post-development score would be 1, resulting in a potentially significant impact to adjacent scenery resulting from project operations.			
Cultural Modifications	1	-1	2	Potentially Significant Impact
<i>Explanation:</i>	Cultural modifications include paved roads, low-lying row crops, orchards, and distant agricultural facilities.	The project development would likely impact the paved roads along the Wible Road frontage visible from this KOP through possible widening and road improvements. The project buildings would constitute substantial cultural modifications to this viewpoint. The proposed project would introduce numerous manufactured elements to the background, constituting significant cultural modifications.		
<i>Detail:</i>	Cultural modifications include agricultural uses as well as paved and dirt roads. The proposed project would introduce industrial components to the middle ground. The project building and other project components would attract attention and create form, line, and color contrast despite the landscaping included to the screen the project development. Therefore, the post-development score would be reduced to -1, resulting in a potentially significant impact to adjacent scenery resulting from project operations.			
Totals:	13	4	9	Potentially Significant Impact

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Existing



Proposed (project not visible from this view)



Figure 4.1-6: KOP 5
Existing and Simulated Views from Houghton Road
Looking Southeast Toward the Project Site

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TABLE 4.1-8: VISUAL QUALITY RATING ANALYSIS–KOP 5

Sensitive Receptor: Motorists as they approach the project site traveling east.
 Pre-development and post-development conditions are depicted in **Figure 4.1-6.**

Rated Feature	Pre-Development Condition	Post-Development Score	Difference in Scores	Impact Significance
Landform	3	3	0	No Impact
<i>Explanation:</i>	Flat terrain with paved road that dominates most of the foreground with active orchards on each side on the road. Dark silhouettes of mountains dominate the background	The project development would be completely screened by the orchard and would not be visible from this KOP.		
<i>Detail:</i>	Flat landforms with active agriculture and a paved road occupy the foreground and middle ground landscape. The distant mountains display a unique conical form that adds interest to the low and flat landscape. The project development would not be visible. Therefore, the proposed project would not substantially alter or modify existing landforms in the view.			
Vegetation	3	3	0	No impact
<i>Explanation:</i>	The immediate foreground is dominated with a paved roadway, exposed soil, and active orchards.	The development of the project components would not be visible from this viewpoint.		
<i>Detail:</i>	The visual effects of vegetation removal would not be visible from this view. Therefore, no impacts to vegetation would occur.			
Water	0	0	0	No Impact
<i>Explanation:</i>	No water is visible on-site or in the surrounding area.	Project development would not introduce water to or remove water from the visible landscape.		
<i>Detail:</i>	Water features are not included in pre- or post-development views. No impacts to water features would occur.			
Color	2	2	0	No Impact
<i>Explanation:</i>	Foreground and middle ground are dominated with gray, paved roadway with light brown exposed soil, and green orchards. Dark gray/brown mountains are in the background.	The development of the project components would not be visible from this view.		
<i>Detail:</i>	The foreground and middle ground are dominated by shades of gray, green, and brown. The proposed project would not be visible from this view. As such, color contrast would be absent due to project site distance from KOP 5.			

TABLE 4.1-8: VISUAL QUALITY RATING ANALYSIS–KOP 5

Sensitive Receptor: Motorists as they approach the project site traveling east.
 Pre-development and post-development conditions are depicted in **Figure 4.1-6.**

Rated Feature	Pre-Development Condition	Post-Development Score	Difference in Scores	Impact Significance
Adjacent Scenery	3	3	0	No Impact
<i>Explanation:</i>	Views are enhanced by low dark mountains in the background.	Distant mountains would remain just as visible as pre-development conditions as the proposed project would not be visible this viewpoint and would not block hills or mountains from view.		
<i>Detail:</i>	Visibility of hills and mountains would not be altered by project development. No impacts would occur.			
Scarcity	2	2	0	No Impact
<i>Explanation:</i>	There are no particularly unique or unusual aspects in the view. Distant mountains add interest to the scene but are visible throughout the local area.	Views would not be modified by project operation.		
<i>Detail:</i>	Views of distant mountains are available in other locations and are not unique to KOP 5, and project development would not substantially affect the availability of long views to in the local area. Therefore, there would be no impact to view scarcity.			
Cultural Modifications	1	1	0	No Impact
<i>Explanation:</i>	Cultural modifications include paved and dirt roads, utility poles and established orchards.	Project development would not be visible from KOP 5.		
<i>Detail:</i>	Cultural modifications include agricultural uses as well as paved and dirt roads. The proposed project would not be visible from this KOP. Therefore, no visual impacts associated with cultural modifications would occur.			
Totals:	14	14	0	No Impact

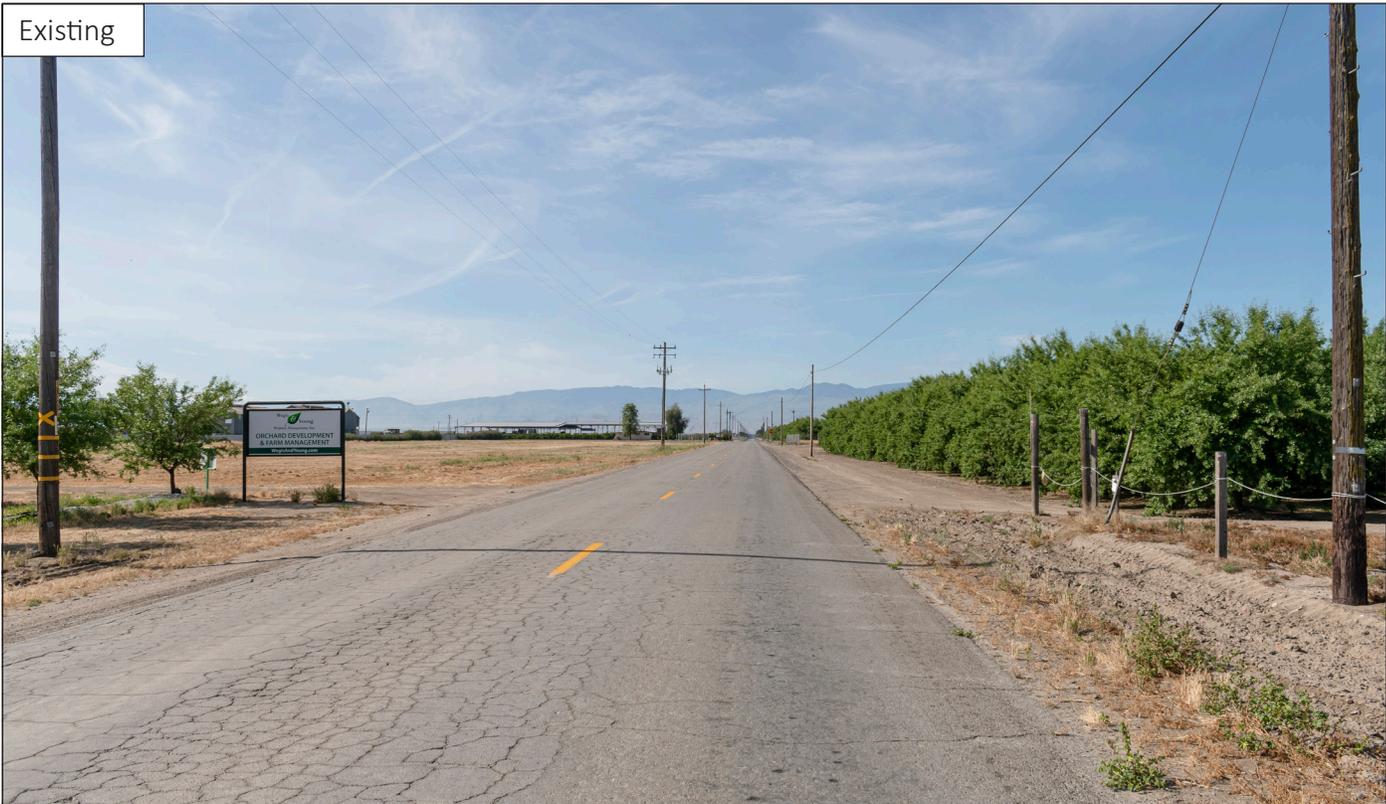


Figure 4.1-7: KOP 6
Existing and Simulated Views from Wible Road
Looking South Toward the Project Site

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TABLE 4.1-9: VISUAL QUALITY RATING ANALYSIS–KOP 6

Sensitive Receptor: Motorists as they approach the project site traveling south.
 Pre-development and post-development conditions are depicted in **Figure 4.1-7.**

Rated Feature	Pre-Development Condition	Post-Development Score	Difference in Scores	Impact Significance
Landform	3	2	1	Less than Significant Impact
<i>Explanation:</i>	Flat terrain with paved road that dominates most of the foreground with active orchards on each side on the road with a large amount of tan and brown exposed soils. Dark silhouettes of mountains dominate the background	The flat topography of the area would not be noticeably modified by project development. Project development would be partially screened by the active orchard and would partially obscure views of the mountains in the background.		
<i>Detail:</i>	Flat landforms with active agriculture and a paved road occupy the foreground and middle ground landscape. The distant mountains display a unique conical form that adds interest to the low and flat landscape. While the project development would be visible from this viewpoint, it would be partially screened by the orchards to the left of the roadway and would not obscure greater views of the mountain range in the background. Therefore, the post-development score would be reduced to 2, resulting in a less than significant impact to landform resulting from project operations.			
Vegetation	2	3	-1	No impact
<i>Explanation:</i>	The immediate foreground is dominated with a paved roadway, exposed soil, and active orchards.	The development of the proposed project would be visible from this viewpoint; however, it would not remove any of the existing vegetation (orchard trees) visible from this viewpoint.		
<i>Detail:</i>	The visual effects of vegetation removal would not be visible from this view. The proposed project would also include landscaping that would introduce additional vegetation of visible interest. Therefore, no impacts to vegetation would occur.			
Water	0	0	0	No Impact
<i>Explanation:</i>	No water is visible on-site or in the surrounding area.	Project development would not introduce water to or remove water from the visible landscape.		
<i>Detail:</i>	Water features are not included in pre- or post-development views. No impacts to water features would occur.			

TABLE 4.1-9: VISUAL QUALITY RATING ANALYSIS–KOP 6

Sensitive Receptor: Motorists as they approach the project site traveling south.
 Pre-development and post-development conditions are depicted in **Figure 4.1-7**.

Rated Feature	Pre-Development Condition	Post-Development Score	Difference in Scores	Impact Significance
Color	2	0	2	Potentially Significant Impact
<i>Explanation:</i>	Foreground and middle ground are dominated with gray, paved roadway with light brown exposed soil, and orchards. Dark gray/brown mountains comprise most of the background.	The project development would introduce industrial materials and metallic colors as well as green tones from landscaping to the viewshed that would greatly contrast with the existing colors.		
<i>Detail:</i>	The foreground is dominated by shades of gray, green, and brown. Introduction of the project development would be highly visible and introduce a number of metallic, light beige, gray, and light blue colors. As such, color contrast would be substantial from KOP 6. Therefore, the post-development score would be reduced to 0, resulting in a potentially significant impact to color resulting from project operations.			
Adjacent Scenery	3	2	1	Less than Significant Impact
<i>Explanation:</i>	Views are enhanced by dark mountains in the background.	Distant mountains would remain mostly visible.		
<i>Detail:</i>	Visibility of hills and mountains would not be substantially altered by project development. The project development would obscure only a small portion of the visible mountain range, which would remain quite dominant from this viewpoint. Therefore, the post-development score would be reduced to 2, resulting in a less than significant impact to adjacent scenery resulting from project operations.			
Scarcity	2	1	1	Less than Significant Impact
<i>Explanation:</i>	There are no particularly unique or unusual aspects in the view. Distant mountains add interest to the scene but are visible throughout the local area.	Distant mountains would remain mostly visible		
<i>Detail:</i>	Views of distant mountains are available in other locations and are not unique to KOP 6, and project development would not substantially affect the availability of long views to in the local area. Therefore, the post-development score would be reduced to 1, resulting in a less than significant impact to scarcity resulting from project operation.			

TABLE 4.1-9: VISUAL QUALITY RATING ANALYSIS–KOP 6

Sensitive Receptor: Motorists as they approach the project site traveling south.
 Pre-development and post-development conditions are depicted in **Figure 4.1-7.**

Rated Feature	Pre-Development Condition	Post-Development Score	Difference in Scores	Impact Significance
Cultural Modifications	1	-1	2	Potentially Significant Impact
<i>Explanation:</i>	Cultural modifications include agricultural uses as well as dirt and paved roads.	The project development would not impact the paved roads visible from this KOP. However, the project buildings would constitute substantial cultural modifications to this viewpoint.		
<i>Detail:</i>	Cultural modifications include agricultural uses as well as paved and dirt roads. The proposed project would introduce industrial components to the middle ground. The proposed warehouse and other project components would attract attention and create form, line, and color contrast despite the landscaping included to the screen the project development. Therefore, the post-development score would be reduced to -1, resulting in a potentially significant impact to adjacent scenery resulting from project operations.			
Totals:	13	7	6	Potentially Significant Impact

Factors Reducing Visual Impacts

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

- The proposed project would include landscaping that would help to visually screen the project building and components from the viewer and add additional visual interest.
- The lack of scenic designation of local roads in the immediate project area reduces viewer sensitivity and expectations for scenic landscapes.
- Minimal on-site lighting would be required during operations, as explained in Impact 4.1-4.

Summary

As shown in **Tables 4.1-4 through 4.1-9**, implementation of the proposed project would result in potentially significant visual impacts to the existing visual quality or character of the site and surrounding area. As shown in the visual simulations, the visual change associated with project development would be somewhat muted when viewed from a distance of greater than 1 mile. The development of a warehouse facility on approximately 93.74 acres of currently undeveloped/active agricultural terrain would likely attract attention.

However, the development of the proposed project would expand existing industrial development present in the San Joaquin Valley. Because other industrial developments are not concentrated in the project vicinity, the proposed project would introduce industrial infrastructure and elements where they do not currently dominate the landscape, resulting in significant aesthetic impacts.

Mitigation Measures MM 4.1-1 through **MM 4.1-3** would be incorporated to reduce visual impacts that would occur from design features of the proposed project. These include the requirement to submit a proposed color scheme and treatment plan of matte or nonglossy colors to be used for the project to be reviewed and approved by the County. The proposed project would not use reflective metal exteriors as an exterior architectural element in buildings immediately adjacent to Houghton Road and Wible Road. In addition, the proposed project would be required to install a visual screen or parapet in order to block views of rooftop mechanical equipment from Houghton and Wible Road. Lastly, the proposed project would be required to submit and receive approval for a landscape plan in compliance with the Kern County Zoning Ordinance. This plan would include specifications regarding California native plants, fencing, irrigations, buffer boundaries along Houghton and Wible Road frontages. Existing native vegetation would also be left in place around the project area where feasible, allowing for a natural screening of project components, the color treatment of the project building and components would help these components to better blend in with the natural landscape. However, because there are no feasible mitigation measures that can be implemented to maintain the existing open and undeveloped and active agricultural landscape character of the project site, impacts to visual resources would remain significant and unavoidable.

Mitigation Measures

MM 4.1-1 Prior to the issuance of building permits for the proposed project, the project applicant 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 The following aesthetic features shall be required in site plans and building permits for commercial buildings located within 1,000 feet of the Houghton Road and Wible Road corridors:

- a. Rooftop screening features shall be installed to create a visual screen for rooftop mechanical equipment, such as a parapet or screening material.
- b. Reflective metal exteriors shall not be used as exterior architectural elements in buildings immediately adjacent to Houghton Road and Wible Road.

MM 4.1-3 Prior to the issuance of grading or building permits for any facilities on the project site, the project applicant shall submit, to the Kern County Planning and Natural Resources Department, 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 and approval by the Kern County Planning and Natural Resources Department Director prior to buffer planting;
- b. California native, drought-tolerant plants;

- c. An irrigation plan as required under the Kern County Zoning Ordinance 19.86.070;
- d. 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 may be chain-link with view obscuring slats.
- e. A 20-foot wide perimeter buffer along any visible boundary from the Houghton Road and Wible Road frontages consisting of: live ground cover, shrubs, or grass, and:
 1. One (1) tree having a minimum planting height of six (6) feet for every 50 lineal feet of buffer;
 2. Evergreen shrubs which reach a minimum height of four (4) to six (6) feet.
 3. 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.
 4. 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.
 5. Landscaping shall be installed prior to final occupancy.

Level of Significance After Mitigation

Despite implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-3**, operational impacts would be significant and unavoidable.

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

Regarding night lighting and daytime glare conditions, “light” refers to artificial light emissions, or the degree of brightness, generated by a given source. Regarding glare conditions, the Illuminating Engineering Society of North America (IES 2000) defines “glare” as 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.

Construction

Lighting

According to the County’s Noise Ordinance, construction is allowed during the hours of 6:00 a.m. to 9:00 p.m. Monday through Friday and 8:00 a.m. to 9:00 p.m. on weekends. Construction of the proposed project would generally occur during daytime hours; however, non-daylight hours may be necessary at times to make up for unanticipated schedule delays or to complete critical construction activities. In the event that work is performed between the hours of 9:00 p.m. to 6:00 a.m., construction crews would use minimal illumination in order to perform the work safely. In accordance with Municipal Code Chapter 19.81 (*Dark Skies Ordinance*) as required by **Mitigation Measure MM 4.1-4**, all lighting would be directed downward and shielded to focus illumination on the desired work areas only and to prevent light spillage onto adjacent

properties. During construction, dusk-to-dawn security lighting would be required for the temporary construction staging area, parking area, construction office trailer entries, and project site access points. Lighting is not planned for typical construction activities because construction activities would occur primarily during daylight. Per **Mitigation Measure MM 4.1-4**, any nighttime construction would use lighting designed to provide the minimum illumination needed, thereby minimizing adverse impacts related to light trespass. As a result, construction of the proposed project would result in less than significant impacts to nighttime views.

Glare

Most of the construction activities are planned to occur during daylight hours. Increased truck traffic and the transport of construction materials to the project site would temporarily increase glare conditions during construction. However, this increase in glare would be minimal and temporary. Construction activity would occur on focused areas of the project site as construction progresses and any sources of glare would not be stationary for a prolonged period of time. Additionally, the surface area of construction equipment would be minimal compared to the scale of the site. Therefore, construction of the proposed 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.

Operation

Lighting

As described in **Chapter 3, Project Description**, outdoor lighting would be placed around the facility to illuminate the site at night for security and nighttime activities. Lighting 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. As described above, potential operational impacts associated with new sources of lighting at the project site would be minimized through compliance with applicable development standards pertaining to lighting, including Chapter 19.81 (*Dark Skies Ordinance*), as required with implementation of **Mitigation Measure MM 4.1-4**, which states that projects would be designed to provide the minimum illumination needed to achieve safety and security objectives. Therefore, implementation of **Mitigation Measure MM 4.1-4** and compliance with applicable local development standards and regulations pertinent to lighting would minimize the potential for light trespass onto adjacent properties and roads, and impacts would be less than significant.

Glare

Potential new sources of glare would be produced by sunlight reflecting off the proposed building and associated infrastructure under the proposed project. Although the proposed project may produce minimal glare, it is not expected to cause extreme visual discomfort or impairment of vision for residents or motorists. Glare would have its greatest impact on westbound travelers in the early morning hours when the sun is rising in the east. To further reduce glare potential, the proposed project would be required to implement **Mitigation Measures MM 4.1-4** and **MM 4.1-5**, which require the use of non-reflective and non-glare materials when feasible. With implementation of these mitigation measures, impacts would be less than significant.

Mitigation Measures

- MM 4.1-4** The project shall continuously comply with applicable provisions of the Dark Skies Ordinance (Chapter 19.81 of the Kern County Zoning Ordinance), and shall be designed to provide the minimum illumination needed to achieve safety and security objectives. All lighting shall be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Lenses and bulbs shall not extend below the shields.
- MM 4.1-5** Prior to the issuance of building permits for any facilities on the project site, the project applicant shall submit, and the Kern County Planning and Natural Resources Department shall have approved, plans verifying all outdoor lighting is designed so that all direct lighting is confined to the project site property lines and that adjacent properties and roadways are protected from spillover light and glare.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.1-4** and **MM 4.1-5**, impacts would be less than significant.

Cumulative Setting Impacts and Mitigation Measures

As shown in **Chapter 3, Project Description, Table 3-5, Cumulative Project List**, there are 14 proposed projects within a 1-mile radius of the project site, including several projects for trucking facilities, a tire shop, and an event venue. Combined, these have the potential to result in cumulative impacts to aesthetics when considered together with the project, although the geographic scope for aesthetics would be approximately 1 mile or less, depending on existing obstruction of views from the project site by existing orchards.

The “scarcity” rating criterion is likely to be impacted by widespread development in the area, as unobstructed views of regional topographical features and undeveloped lands would be less available as acreage is developed.

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. The closest Officially Designated Scenic Highway is SR-2, located over 60 miles to the southeast of the project site in Los Angeles County. The closest section of highways eligible for a State Scenic Highway designation is SR-58 and SR-14, located approximately 50 miles west of the project site and separated by the Tehachapi Mountains. As such, the proposed project would have no contribution to less than significant cumulative impacts.

Cumulative development includes an industrial development near the proposed project site, as well as the construction of a potential new school for Kern High School District. This substantial increase in development will alter the visual character of the area. While other projects in the region would also be required to implement various mitigation measures to reduce impacts associated with visual character, the conversion of land in a presently rural area to industrial, mining, commercial and residential uses cannot be mitigated to a degree that impacts are no longer significant. Therefore, cumulative impacts are considered significant and unavoidable. Development of the proposed project would result in significant impacts

associated with visual character in the area. Even with implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-3**, the proposed project's contribution to significant cumulative impacts associated with visual character and quality in the southern San Joaquin Valley would be significant and unavoidable.

The cumulative study area for lighting and glare impacts includes the areas in the immediate vicinity of the project site and off-site roadways that could experience light spillover and glare effects. Cumulative projects in the area would be required to adhere to existing regulations pertinent to lighting and would be required to implement various mitigation measures to reduce lighting and glare impacts to less than significant. With adherence to existing regulations and project specific mitigation, cumulative impacts would be reduced to less than significant. Moreover, the proposed project's contribution to less than significant cumulative impacts would not be cumulatively considerable with the implementation of **Mitigation Measures MM 4.1-4** through **MM 4.1-5**. Therefore, cumulative impacts would be less than significant in relation to light and glare.

As discussed above, there are no identified scenic vistas on or visible from the project site. Additionally, intervening development would reduce the visual prominence of the proposed development to persons traveling in passenger vehicles on adjacent roads. The proposed project would create significant and unavoidable impacts related to the visual character and quality of the area. Therefore, the proposed project would contribute significant and unavoidable impacts, and cumulative impacts would, as such, be significant and unavoidable.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-5**.

Level of Significance After Mitigation

Despite implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-5**, the proposed project's contribution to cumulative impacts related to visual character would be significant and unavoidable. Cumulative impacts related to scenic vistas, scenic resources, and light and glare would be less than significant.

Section 4.2
Agriculture and Forestry Resources

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Section 4.2

Agriculture and Forestry Resources

4.2.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory settings for agriculture and forestry resources for the proposed project. It also describes the impacts on agricultural and forest resources that would result from the implementation of the proposed project, and includes mitigation measures that would reduce these impacts, where applicable. This section is based, in part, on information provided in the Kern County Agricultural Crop Report (2021) prepared by the Department of Agriculture and Measurement Standards along with the Phase I Environmental Site Assessment (Phase I ESA) (Geosyntec Consultants 2023) prepared for the proposed project and provided in Appendix F of this Draft EIR.

4.2.2 Environmental Setting

Regional Setting

Kern County (County) covers approximately 8,161 square miles (5,222,978 acres) including 1,384 square miles (885,957 acres) of harvested agricultural land and approximately 2,889 square miles (1,849,266 acres) of grazing land. According to the 2021 Kern County Agricultural Crop Report, agriculture in Kern County was worth approximately \$8.3 billion in 2021, which is an increase of 9 percent from the 2020 crop value. The top five commodities for 2021 were grapes, almonds, citrus, milk, and pistachios, which made up more than \$6.3 billion (75 percent) of the total value, with the top 20 commodities making up 95 percent of the total value (California Department of Agriculture and Measurement Standards 2021).

Kern County is growing and must balance urbanization and the loss of farmland like many other agricultural-based jurisdictions. As shown in **Table 4.2-1, Agricultural Land Use Designation Conversions in 2018** approved amendments re-designated 31.31 acres of agriculturally designated lands for nonagricultural uses. These amendments resulted in a total net conversion of 31.31 acres within unincorporated Kern County (Kern County 2022).

TABLE 4.2-1: AGRICULTURAL LAND USE DESIGNATION CONVERSIONS IN 2018

Project/Applicant	Case Number	Document	From Map Code	To Map Code	Acreage Converted
Kern County Planning and Natural Resources Department	GPA 6, Map 17-15	KCGP	8.2	5.5	-0.92
Kern County Planning and Natural Resources Department	GPA 24, ZCC 83, Map 124	Metropolitan Bakersfield General Plan	R-IA	HR	-10.00

Project/Applicant	Case Number	Document	From Map Code	To Map Code	Acreage Converted
Andy and Judy Dahl	SPA 16, ZCC 72, Ag Pres Excl, Map 165	Greater Tehachapi Specific and Community Plan	8.1/2.7	5.7/2.7	-20.39
Total Acreage Converted (net)					-31.31

Notes:

Kern County General Plan

8.2 – Resource Reserve (Min. 20- or 80-acre parcel size)

5.5 – Residential, Maximum 1 unit/net acre

Metropolitan Bakersfield General Plan

R-IA – Intensive Agriculture, areas devoted to the production of irrigated crops, or having the potential for such use.

HR – High Density, applies to large multiple-family structures, such as apartments, apartment hotels, and condominiums.

Greater Tehachapi Specific and Community Plan

8.1/2.7 – Intensive Agricultural/Liquefaction Risk

5.7/2.7 – Residential, Minimum 5 gross acres/unit/Liquefaction Risk

Source: Kern County General Plan and Housing Element Annual Progress Report, 2022

According to Kern Council of Governments (Kern COG), it is estimated that the total population of Kern County will reach approximately 1,227,200 individuals in 2050 (Kern COG 2019), growing from the current estimated 2023 population of approximately 907,476 (California Department of Finance [DOF] 2023). The anticipated growth in population will most likely decrease the amount of agricultural land in Kern County even further. 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 is dependent 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. Most conversion of Prime or Farmland of Statewide Importance agricultural lands is occurring within the planned development footprint of Metropolitan Bakersfield. Very little conversion of the most productive agricultural lands has occurred in outlying areas of the County. According to the California Department of Conservation (DOC), between 2004 and 2018, 69,193 acres of Prime Farmland, 6,382 acres of Farmland of Statewide Importance, and 17,550 acres of Unique Farmland across the County were converted to nonagricultural uses (DOC 2018).

Local Setting

The project site is located on the *Conner, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map. The project site is relatively flat. Elevation of the project site is approximately 330 feet above mean sea level (AMSL) with a gradually decreasing topographic gradient to the south. Project site soils consist of Bakersfield fine sandy loam and Vineland loamy sand. Bakersfield fine sandy loam is listed as “Prime Farmland if irrigated,” while Vineland loamy sand is listed as “not Prime Farmland” (UC Davis California Soil Resource Lab 2023). **Figure 4.2-1, Soils Map** shows the soils within the project site.

The project site is located approximately 1.3 miles south of the City of Bakersfield in unincorporated Kern County. The project site is located along Houghton Road, approximately 1 mile west of State Route (SR) 99 and 8.75 miles east of Interstate 5 (I-5). The Kern Island Canal and a cluster of unincorporated residences are located approximately 1 mile east of the project site. The project vicinity is characterized by cultivated agricultural uses (row crops and orchards) as well as agricultural processing facilities. The project site is currently used as an active agricultural field and has been historically covered by row crops.

Surrounding land uses include the following:

- **North**—Houghton Road and Martin Feed Inc, an agricultural processing facility, is located north of the project site on the opposite side of Houghton Road. The facility contains several large agricultural structures and is surrounded by a fence.
- **South**—An agricultural property used for row crops is located immediately south of the project site.
- **West**—Wible Road and Martin Feed Inc, an agricultural processing facility, are located immediately west of the project site. The facility includes a canopy that covers processing equipment. An agricultural property used for orchards is located on the west side of Wible Road.
- **East**—An agricultural property used for row crops is located immediately east of the project site.

Project Site Designation

The project site is located within the administrative boundaries of the Metropolitan Bakersfield General Plan. As previously described in detail in **Chapter 3**, Project Description, the project site is designated for agricultural uses (see **Chapter 3**, **Figure 3-5**, *Existing General Plan Land Use Designations*). Additionally, the entire site is zoned agriculture, as shown in Chapter 3, **Figure 3-7**, Existing Zoning.

The project site is also included within Kern County Agricultural Preserve Number 10, as is the standard practice in Kern County for any land that is zoned A (Exclusive Agriculture).

According to the DOC's Farmland Mapping and Monitoring Program (FMMP), a significant portion of the project site is designated as Prime Farmland while the remaining portion of the project site is designated as Unique Farmland and Semi-Agricultural and Rural Commercial Land (see **Figure 4.2-1**, *Soils Map*). Prime Farmland is defined as irrigated land with the best combination of physical and chemical features to sustain long-term production of agricultural crops. The Unique Farmland designation is applied to areas with lesser quality soils used for the production of the State's leading agricultural crops (see **Figure 4.2-2**, *Farmland Mapping and Monitoring Program Designations*.) Adjoining properties are designated Prime Farmland, Unique Farmland, and Semi-Agricultural and Rural Commercial Land (DOC 2022a).

Agricultural Preserve

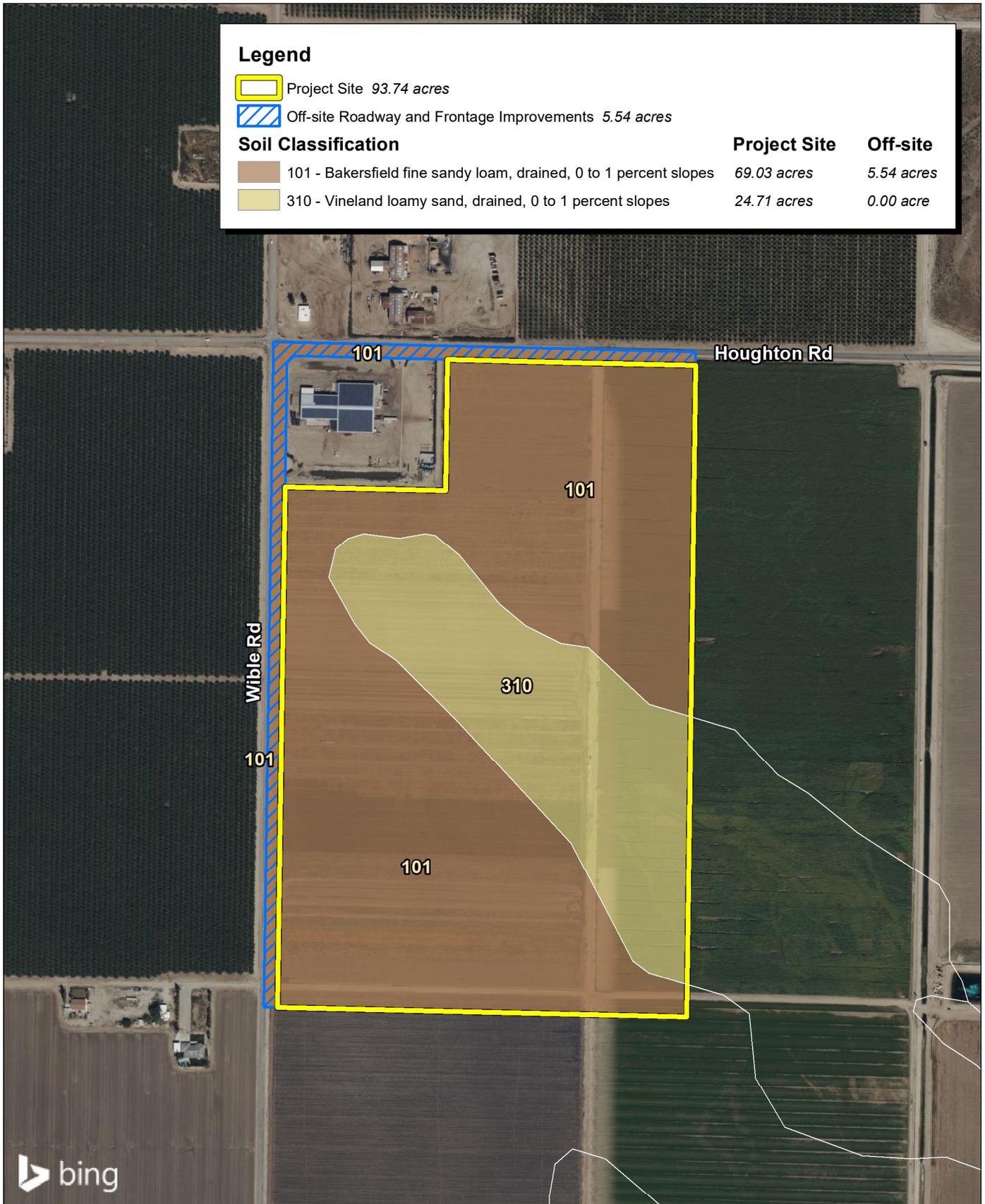
An agricultural preserve defines the boundary of an area within which a city or county will enter into Williamson Act Contracts with landowners. The boundary is designated by resolution of the board or city council having jurisdiction. Agricultural preserves must generally be at least 100 acres in size (DOC 2023a).

The project site is located within Agricultural Preserve No. 10. Entitlement for the proposed project includes approval of Exclusion from Agricultural Preserve No. 10.

Williamson Act Land Use Contracts

The administration of the local Williamson Act program for the County, including all necessary policies and procedures, is initiated, developed, and amended by the Kern County Board of Supervisors upon the recommendation of the County's Planning Director as the Administrator of the program. Property subject to a Williamson Act Contract must have a General Plan resource designation (i.e., 8.1, 8.2, 8.3, 8.5), be within the boundaries of an established Agricultural Preserve, have a zoning of A (Exclusive Agriculture), and have an established qualifying agricultural use.

The project site is not currently subject to an existing Williamson Act Land Use contract (DOC 2022b).



Source: Bing Aerial Imagery. Kimley-Horn, 04/2023. USDA Soils Data Mart, Kern County Southwest Area.



Figure 4.2-1
Soils Map

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Legend

- Project Site 93.74 acres
- Off-site Roadway and Frontage Improvements 5.54 acres

Land Cover Categories

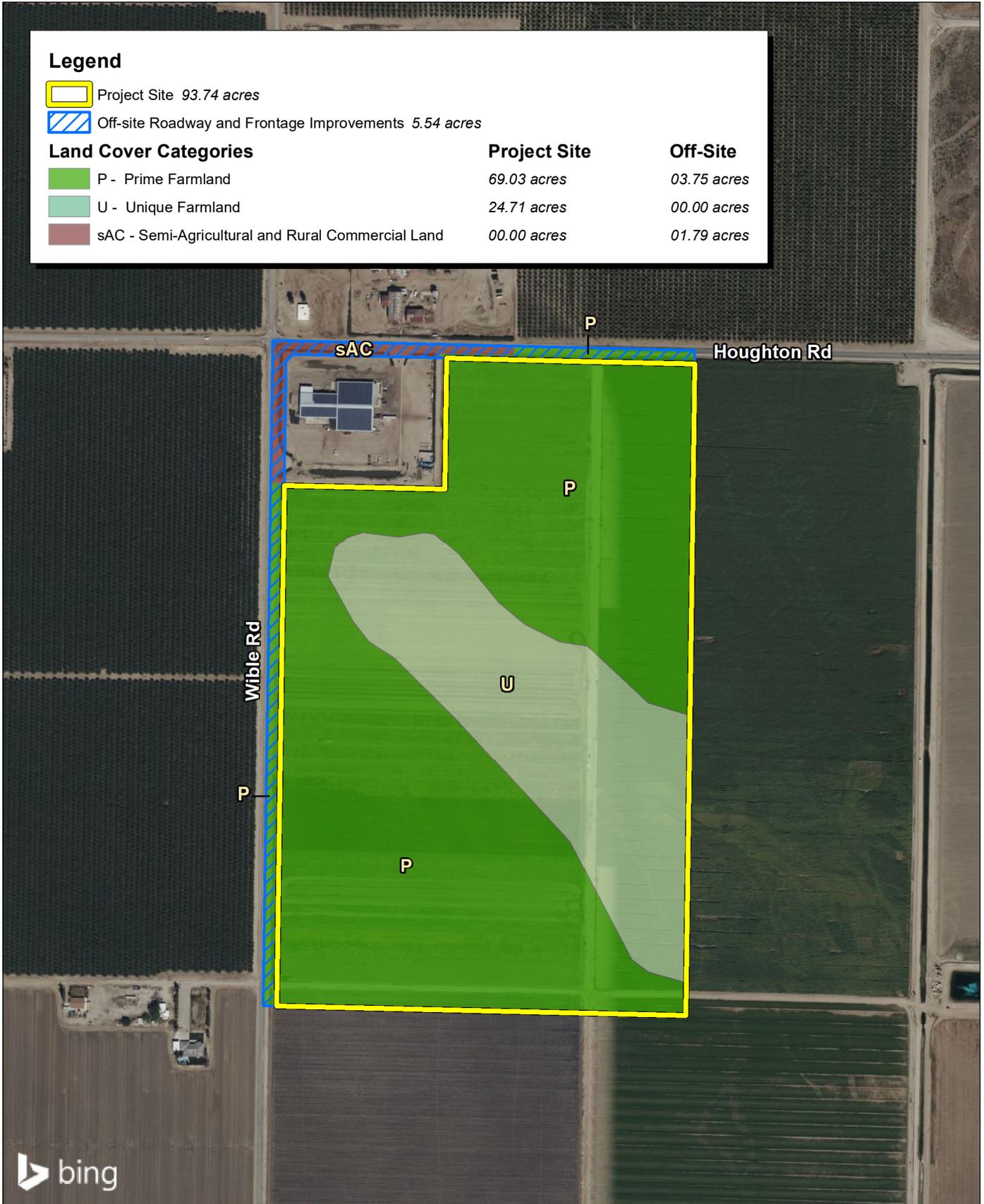
- P - Prime Farmland
- U - Unique Farmland
- sAC - Semi-Agricultural and Rural Commercial Land

Project Site

- 69.03 acres
- 24.71 acres
- 00.00 acres

Off-Site

- 03.75 acres
- 00.00 acres
- 01.79 acres



Source: Bing Aerial Imagery. Kimley-Horn, CA Department of Conservation Kern County FMMP, 2018.



Figure 4.2-2
Farmland Mapping and
Monitoring Program Designations

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4.2.3 Regulatory Setting

Federal

Farmland Protection Policy Act (7 United States Code [USC] § 4201)

The purpose of the Farmland Protection Policy Act (FPPA) is to minimize the extent to which federal programs contribute to the unnecessary and irreversible conversion of farmland to nonagricultural uses. It additionally directs federal programs to be compatible with State and local policies for the protection of farmland. Under the FPPA, the term “farmland” includes Prime Farmland, Unique Farmland, and Farmland of Statewide or Local Importance. Farmland that is subject to FPPA requirements does not have to be currently used as cropland. It can be forestland, pastureland, or other land but not urban and built-up land or water. FPPA assures that, to the extent possible, federal programs are administered to be compatible with State and local units of government, and private programs and policies to protect farmland.

In 1981, Congress passed the Agriculture and Food Act (Public Law 97-98) which contained 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. Federal agencies are required to develop and review their policies and procedures related to implementing the FPPA every 2 years.

The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or affect the property rights of owners in any way. 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 rely on assistance from a federal agency (Natural Resources Conservation Service [NRCS] 2023).

State

California Department of Conservation, Division of Land Resource Protection

The DOC applies the NRCS soil classifications to identify agricultural lands. These agricultural designations are used in planning for the present and future of California’s agricultural land resources. The DOC uses a minimum mapping unit of 10 acres; parcels that are smaller than 10 acres are absorbed into the surrounding classifications. The project site is designated as “Prime Farmland” and “Unique Farmland” according to the DOC’s FMMP (DOC 2022a).

The list below describes the categories mapped by the DOC (DOC 2023b) through the FMMP. Collectively, lands classified as Prime Farmland, Farmland of Statewide Importance, and Unique Farmland are referred to as “farmland.”

- **Prime Farmland.** Farmland that has the ideal combination of physical and chemical features. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields and long-term agricultural production. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

- **Farmland of Statewide Importance.** Farmland that is similar to Prime Farmland but with minor shortcomings, such as greater slopes or lower moisture content. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Unique Farmland.** Land with lesser quality soils used for the production of the State’s leading agricultural crops. This land is usually irrigated but may include land that supports non-irrigated orchards or vineyards, as found in some climatic zones in California. The land must have been used for crops at some time during the four years prior to the mapping date.
- **Farmland of Local Importance.** Land that is important to the local agricultural economy, as determined by each county’s board of supervisors and a local advisory committee.
- **Grazing Land.** Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen’s Association, University of California Cooperative Extension, and other groups with an interest in grazing activities.
- **Urban and Built-Up Land.** Land that is developed with structures that have been built to a density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. This land supports residential, industrial, commercial, institutional, public administrative uses; railroad and other transportation yards; cemeteries; airports; golf courses; sanitary landfills; sewage treatment facilities; water control structures; and other developed uses.
- **Other Land.** 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 water bodies smaller than 40 acres. Undeveloped and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land.

California Land Conservation Act (Williamson Act)

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act (California Government Code §§ 51200–51297.4), is applicable to specific parcels within the State of California. The Williamson Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space uses in return for reduced property tax assessments. Private land within locally designated agricultural preserve areas is eligible for enrollment under a Williamson Act Contract. The Williamson Act program is administered by the DOC, in conjunction with local governments that administer the individual contract arrangements with landowners. Participation in the Williamson Act program is dependent on County adoption and implementation of the program and is voluntary for landowners (DOC 2023c).

Farmland Security Zone Act

The Farmland Security Zone Act is similar to the Williamson Act. It was passed by the California State Legislature in 1999 to ensure that long-term farmland preservation is part of public policy in the State. Farmland Security Zone Act contracts are sometimes referred to as “Super Williamson Act Contracts.” Under the provisions of this act, a landowner who is already under a Williamson Act Contract can apply for Farmland Security Zone status by entering into a contract with the county. Farmland Security Zone classification automatically renews each year for an additional 20 years. In return for a further 35 percent reduction in the taxable value of land and growing improvements (in addition to Williamson Act tax benefits), the owner of the property 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 for the purposes of assessing 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 analysis pertaining to agricultural land use changes throughout California.

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 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 are also the City of Bakersfield adopted Sphere of Influence (SOI). The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for mineral resources applicable to the proposed project are provided below.

The Metropolitan Bakersfield General Plan 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 Metropolitan Bakersfield General Plan for agricultural resources applicable to the proposed project are provided below.

Chapter II: Land Use Element

Goals

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

Policies

Policy 80 Assure that General Plan Amendment proposals for the conversion of designated agricultural lands to urban development occur in an orderly and logical manner giving full consideration to the effect on existing agricultural areas (see Chapter V, Conservation/Soils and Agriculture Policies 3 and 14).

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 I and/or II irrigated soils
- 80-100 Storie Index rating
- Gros crop return of \$200 or more per acre per year
- Annual carrying capacity of one animal unit per acre per year

Policies

Policy 2 Review projects that proposed subdividing or urbanizing prime agricultural land to ascertain how continued agricultural production in the vicinity will be affected.

Policy 14 When considering proposals to convert designated agricultural lands to nonagricultural use, the decision-making body of the City and County shall evaluate the following factors to determine the appropriateness of the proposal:

- Soil quality
- Availability of irrigation water
- Proximity to nonagricultural uses
- Proximity to intensive parcelization
- Effect on properties subject to “Williamson Act” land use contracts
- Ability to be provided with urban services (sewer, water, roads, etc.)
- Ability to affect the application of agricultural chemicals on nearby agricultural properties
- Ability to create a precedent-setting situation that leads to the premature conversion of prime agricultural lands
- Demonstrated project need
- Necessity of buffers such as lower densities, setbacks, etc.

Kern County Zoning Ordinance

The Kern County Zoning Ordinance establishes basic regulations under which land is developed. This includes allowable uses, building setback requirements, and development standards. Pursuant to State law, the zoning ordinance must be consistent with the underlying General or Specific Plan. The basic intent of the Kern County Zoning Ordinance is to promote and protect the public health, safety, and welfare via the orderly regulation of the 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.

As previously mentioned in Chapter 3, Project Description, and as described in **Section 4.2.2**, *Environmental Setting*, the Kern County Zoning Ordinance classifies the entire project site for agricultural uses under the A (Exclusive Agriculture) District.

4.2.4 Impacts and Mitigation Measures

This section of the Draft EIR describes the impact analysis relating to agriculture and forestry resources for the proposed project. It describes the methods used to determine the impacts of the proposed project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Methodology

The proposed project's potential impacts on agriculture and forestry resources have been evaluated on a qualitative basis by reviewing the Kern County Agricultural Crop Report (2020) and the 2016 DOC Important Farmland Map. A change in land use would normally be determined to be significant if the effects described in the thresholds of significance were to occur (see California Code of Regulations [CCR] Title 14, § 15064.7(a)). The evaluation of project impacts is based on a thorough analysis of the Kern County General Plan's applicable goals and policies related to agricultural resources, professional judgment, and the significance criteria established by the lead agency.

Thresholds of Significance

The Kern County California Environmental Quality Act (CEQA) Implementation Document and Kern County Environmental Checklist identify, in accordance with CEQA Guidelines Appendix G, that a project would have a significant impact on agriculture and forestry resources if it would:

- a. 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.
- b. Conflict with existing zoning for agricultural use or Williamson Act Contract.
- c. 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)).
- d. Result in the loss of forestland or conversion of forest land to non-forest use.
- e. 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.

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.

The project site is currently used as an active agricultural field and has historically produced row crops. The project site contains 69.03 acres of Prime Farmland and 24.71 acres of Unique Farmland. The off-site roadway and frontage improvement area contains 3.75 acres of Prime Farmland and 1.79 acres of Semi-

Agricultural and Rural Commercial Land (**Figure 4.2-2, *Farmland Mapping and Monitoring Program Designations***). Adjoining properties are designated as Prime Farmland, Unique Farmland, or Semi-Agricultural and Rural Commercial Land (DOC 2022a).

The proposed project would result in a significant impact on agricultural resources due to the conversion of Prime Farmland, Unique Farmland, and Semi-agricultural and Rural Commercial Land to nonagricultural use with the permanent conversion of 93.74 acres to support light industrial uses, in addition to approximately 5.54 acres dedicated to the County of Kern for future road right-of-way improvements. **Mitigation Measures MM 4.2-1** through **MM 4.2-4** places restrictions and limitations on pesticides, fungicides, and herbicides used on crops or restrictions placed on noise, burning, and dust. Vehicle emissions from project transportation routes and additional roadways can impact the health and survival of crops, and increased traffic could reduce the efficiency and increase the hazards of moving crops and farm machinery along rural road. However, even with implementation of **Mitigation Measures MM 4.2-1** through **MM 4.2-4**, the loss of 72.78 acres of Prime Farmland and 26.5 acres of Important Farmland (24.71 acres of Unique Farmland within the site and 1.79 acres of Semi-agricultural and Rural Commercial Land within the off-site roadway and frontage improvement area) is a significant and unavoidable impact. Therefore, although the mitigation would reduce impacts to farmland on adjacent parcels through compliance with the measures listed below, it would not provide additional farmland to replace the original 93.74-acres for the project site and 5.54 acres of road improvements lost as a result of the proposed project. Based on the change in zoning from A (Exclusive Agriculture) to M-1 PD (Light Industrial, Precise Development), the proposed project would result in the loss of approximately 99.28 acres of land currently used for agricultural uses. Such a loss in the context of the Kern County General Plan and Metropolitan Bakersfield General Plan is significant and unavoidable.

Conversion of the project site, which is close to urban centers, will include potential benefits for the reduction in the use of pesticides and fertilizers, and the potential reduction in groundwater use. However, although nonagricultural sites exist to the south and east of the project site, agricultural uses also exist contiguous to the project site that may be impacted by the conversion. The conversion of the project site may have an effect on the adjacent agricultural properties by placing restrictions and limitations on pesticides, fungicides, and herbicides used on crops or restrictions placed on noise, burning, and dust. Vehicle emissions from project transportation routes and additional roadways can impact the health and survival of crops, and increased traffic could reduce efficiency and increase the hazards of moving crops and farm machinery along rural roads. Implementation of the **Mitigation Measures MM 4.2-1** through **MM 4.2-4** would reduce potential impacts to adjacent agricultural properties.

CEQA requires that all feasible and reasonable mitigation be reviewed and applied to projects. CEQA Section 15364 defines feasible to mean “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors.” The standard of applicability also includes CEQA case law and determinations on the ability to impose specific mitigation on projects. Agricultural conservation easements are legally recorded deed restrictions that are placed on a specific property used for agricultural production. The goal of an agricultural conservation easement is to maintain agricultural land in active production by removing the development pressures from the land. Such an easement prohibits practices that would damage or interfere with the agricultural use of the land. Because the easement is a restriction on the deed of the property, the easement remains in effect even when the land changes ownership. While such voluntary easements are an important tool for landowners for tax purposes and land trust groups encourage agricultural uses and protect land from urban encroachment, they are no longer considered mitigation under CEQA.

The Fifth Appellate District February 25, 2020 decision in *King and Gardiner Farms, LLC et al. v County of Kern et al.* 45 Cal.App.5th 814] determined that mitigation to require placing other lands at a 1:1 ratio, or any other ratio, under an agricultural easement does not mitigate for the loss of farmland as it does not create new farmland. The court also concluded that allowing purchase of credits for conversion of agricultural lands from an established agricultural farmland mitigation bank or equivalent program or allowing participation in an agricultural land mitigation program adopted by the County that “provides equal or more effective mitigation” did not provide effective mitigation for the conversion of agricultural land. The court found that no such programs currently exist, and, if they did, like conservation easements, such programs would not actually offset the conversion of agricultural land.

Mitigation Measures

MM 4.2-1 Prior to the issuance of building permits, a site plan shall be submitted to the Kern County Planning and Natural Resources Department showing a minimum 100-foot building setback from the property line of adjacent property (defined as property that shares a property line) zoned A (Exclusive Agriculture) to eliminate interference with current or future agricultural operations. Project design features such as roads, berms, required landscaping, and parking lots are permitted within the required setback area.

MM 4.2-2 Prior to issuance of building permits, the project proponent shall ensure that the following note appears on all site plans associated with the project. The project proponent shall also require a form with the same note be signed by all future occupants of the facility and be provided to the County.

“The County of Kern encourages operation of properly conducted businesses in agriculture, oil, mining, manufacturing, and other nonresidential operations within the County. If the property you are purchasing or leasing is located near these businesses, you may be subject to inconveniences or discomforts arising from such operations to the extent allowed by law. This notice does not waive your legal rights.”

MM 4.2-3 Prior to the issuance of building permits, a summary report shall be submitted to the Kern County Planning and Natural Resources Department describing how the project is designed to reduce conflicts to the extent feasible between the project’s operation and the continued use of adjacent properties zoned A (Exclusive Agriculture). Design considerations shall include, but not be exclusive to: windows that open and ventilation systems placed so as to not bring in air adjacent to active agricultural operations; project egress and ingress not be in conflict with agricultural operations or access; sufficient on-site parking to discourage parking on or adjacent to agricultural lands; prohibition of such off-site parking; provisions for physical buffers or zones between the project and agricultural zoned properties that reduce conflicts between agricultural uses and the project.

MM 4.2-4 The project proponent/operator shall continuously comply with the following:

- a. The construction contractor or project personnel shall use herbicides that are approved for use in California, and are appropriate for application adjacent to natural vegetation areas and agricultural use. Personnel applying herbicides shall have all appropriate

State and local herbicide applicator licenses and comply with all State and local regulations regarding herbicide use.

- b. Herbicides shall be mixed and applied in conformance with the manufacturer's directions.
- c. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and material safety data sheets for all hazardous materials to be used.
- d. To minimize harm to wildlife, vegetation, and water bodies, herbicides shall not be applied directly to wildlife.
- e. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed.
- f. Herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water.
- g. 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.
- h. A written record of all herbicide applications on the site, including dates and amounts, shall be maintained and provided to the Kern County Planning and Natural Resources Department, if requested.

Level of Significance After Mitigation

Because the court of appeal rejected agricultural conservation easements, and other measures discussed above, and concluded that agricultural conservation easements do not offset the loss of agricultural land in whole or in part, and therefore do not reduce a project's impact on agricultural land no feasible mitigation exists for impacts due to the conversion of Prime Farmland, the impact remains significant and unavoidable

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

The project site is located within the A (Exclusive Agriculture) Zone District. The proposed project would require a Zone Classification Change from A (Exclusive Agriculture) to M-1 PD (Light Industrial–Precise Development Combining). The project site is also located within Kern County Agricultural Preserve No. 10, as is the standard practice in Kern County for any land that is zoned A. The project site is not encumbered by a Williamson Act Contract.

Pursuant to County Zoning Ordinance Section 19.36.030, the primary component of the proposed project, the inbound cross dock and distribution operation, is permitted on a "by right" basis in the M-1 PD District and would require approval of a Precise Development Plan (PD Plan). Accessory components would require approval of two Conditional Use Permits (CUPs) to allow for the construction and operation of a temporary concrete batch plant to supply concrete during construction pursuant to 19.36.030.C.1 and a permanent on-site wastewater treatment facility, pursuant to Chapter 19.36.030.H of the Kern County Zoning Ordinance. With approval of the PD Plan and CUPs, development of the proposed project would be compatible with the proposed M-1 PD zoning and all applicable land use policies and regulations. However, as the site currently stands, the proposed project would conflict with the existing agricultural zoning of the project

site, and development of the proposed light industrial project would conflict with existing zoning for agricultural use and the impact would be significant and unavoidable.

As referenced above, the project site is not subject to any Williamson Act Contracts and, as such, there are no impacts related to the Williamson Act. Nonetheless, the proposed project would conflict with existing zoning and is therefore considered a significant impact.

Mitigation Measures

No feasible mitigation.

Level of Significance

Impacts would be significant and unavoidable.

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)).

As previously mentioned, currently the project site is entirely within the Exclusive Agriculture (A) Zone District, and is not zoned for forest land, timberland, or timberland production. Given that the project site is not currently zoned for forest land, timberland, or timberland production, there is no possibility for the proposed project to conflict with existing zoning, and therefore, no impact would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance

No impact would occur.

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

The proposed project is not situated on forest land and would not convert forest land to non-forest uses. There is no land in the vicinity of the project site that is zoned as forest land, timberland, or lands zoned for timberland production. Because of a lack of forest land on the site, the proposed project does not involve any changes to the existing environment that, due to their location or nature, could result in impacts resulting in the loss of forest land or conversion of forest land to non-forest use. Therefore, there are no anticipated impacts related to the rezoning of forest land or conversion of forest land to a non-forest use and therefore no impact related to the loss of forestland would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance

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 does not contain forest land and therefore, no impacts related to the subsequent conversion of forest land to non-forest use would occur as a result of the proposed project.

As discussed in **Impact 4.2-1**, above, the approximately 93.74 acre project site and 5.54 acres of off-site road improvements currently contain land designated as Prime Farmland and Unique Farmland. As discussed in **Impact 4.2-2**, above, the project site is within Kern County Agricultural Preserve No. 10 but is not encumbered by an active Williamson Act Contract.

In total, approximately 99.28 acres of farmland would be converted to nonagricultural uses. Therefore, the proposed project would have significant impacts to agricultural land within the project site resulting from the direct conversion of agricultural land to nonagricultural land.

Development associated with the proposed project would occur within the project off-site areas and, because the proposed project may cause changes to the existing environment, development of the proposed project would be required to adhere to the requirements outlined in **Mitigation Measures MM 4.2-1** through **MM 4.2-4** to reduce conflicts between the site and adjacent agricultural uses.

Furthermore, development of the proposed project would not result in any significant environmental impacts on adjacent properties as a result of the release of fuels, solvents, pesticides, or herbicides. Potential impacts from construction and operation activities that may result from the release of fuels, solvents, pesticides, or herbicides onto adjacent properties would be reduced to less than significant levels through spill prevention measures outlined under **Mitigation Measures MM 4.9-1** and **MM 4.9-2**, the development of a hazardous materials business plan, as required by **Mitigation Measure MM 4.9-3** (see **Section 4.9, Hazards and Hazardous Materials**), and through regulation of the use of herbicides associated with project landscaping and maintenance, as required by **Mitigation Measure MM 4.2-4**. Furthermore, the proposed project would require the extension of water and electricity infrastructure, which would allow for the conversion of adjacent agricultural parcels to nonagricultural use in the future. Therefore, even with implementation of **Mitigation Measures MM 4.9-1** through **MM 4.9-3**, impacts would be significant and unavoidable.

As discussed above, the proposed project is not situated on forest land and would not convert forest land to non-forest uses. There is no land in the project vicinity that is designated as forest land, timberland, or lands zoned for timberland production. Because of a lack of forest land on the site, the proposed project does not involve any changes to the existing environment that, due to their location or nature, nor could result in impacts resulting in the loss of forest land or conversion of forest land to non-forest use. Therefore, there are no anticipated impacts related to the rezoning of forest land or conversion of forest land to non-forest use and, thus, there would be no impact.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.2-1** through **MM 4.2-4** and **Mitigation Measure MM 4.9-1** through **MM 4.9-3** would be required (see **Section 4.9, Hazards and Hazardous Materials**, for full mitigation measure text).

Level of Significance After Mitigation

Despite implementation of **Mitigation Measures MM 4.2-1** through **MM 4.2-4** and **MM 4.9-1** through **MM 4.9-3**, impacts would be significant and unavoidable.

Cumulative Setting, Impacts, and Mitigation Measures

The geographic scope for cumulative impacts to agricultural and forest resources encompasses an approximately 1-mile radius around the project site. As shown in **Chapter 3, Project Description, Figure 3-9, Cumulative Projects**, and **Table 3-5, Cumulative Projects List**, of this Draft EIR, there are three cumulative projects in the project vicinity, including a new warehouse, located immediately adjacent to the project site and located on the same Assessor's Parcel Number. The proposed warehouse would be located on Important Farmland and may contribute to a loss of farmland. This represents a potentially cumulative impact.

Kern County ranks high on the list of California Counties with respect to urbanization and loss of farmland. Data indicates that the total number of farms in the County decreased by 179 farms (8 percent) since the previous Census in 2007, and the actual acreage in farming production decreased by 31,532 acres (1 percent) of total producing farmland. The DOC found that 13,751 acres of land, including categories of important farmland, grazing land, and other land, were converted to nonagricultural uses between 2010 and 2012. This is primarily due to population growth within the City of Bakersfield and the conversion of agricultural lands within the Metropolitan Bakersfield General Plan area. While population growth and the outward expansion of residential sprawl is likely to decrease the amount of agricultural land in Kern County in the future, other factors, including availability of water, also contribute to decreases in farmland productivity and in turn, create incentives for landowners to consider the conversion of affected farmland to residential use. However, according to the Division of Land Resource Protection (DLRP), a large number of Kern County property owners decided to enroll in Williamson Act contracted acreage in 2013. This contributed to a gain of 9,823 acres of Williamson Act contracted land in 2013 in Kern County. Population growth would most likely decrease the amount of agricultural land in Kern County even further, but new enrollments in Williamson Act contracted land may be seen as an indicator of stability in the agricultural economy (DLRP 2015)

As previously discussed, the proposed project would convert approximately 93.74 acres of agricultural land to nonagricultural uses, including approximately 5.54 acres of land to be used for off-site road improvements. Because development of the proposed project would result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), the proposed project's contribution to the conversion of agricultural land to nonagricultural uses would be cumulatively considerable. The proposed project's incremental effect is 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, and thus cumulative impacts would be significant and unavoidable.

The proposed project site is not encumbered by an existing Williamson Act Contract and therefore, would not conflict with any existing Williamson Act contracted land. In addition, the proposed project would require a Zone Classification Change from the A (Exclusive Agriculture) District to the M-1 PD (Light Industrial–Precise Development Combining) District. Therefore, cumulative impacts related to a conflict with a Williamson Act Contract would be less than significant. As discussed above, the project site is not zoned for forest land, timberland, or timberland production. As such, the proposed project would not conflict with existing zoning for, or cause rezoning of, forest land or timberland or timberland zoned for Timberland Production, nor would the proposed project result in the loss of forestland or conversion of forest land to non-forest use. Cumulative projects in the vicinity of the project site are also not located on land zoned for forest land, timberland, or timberland production. No cumulative impacts would occur.

As analyzed above, operation of the proposed project would not preclude the conversion of surrounding areas to agricultural uses. Therefore, the proposed project would not 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. While development of the proposed project would result in conversion of Farmland to nonagricultural uses, the proposed project's contribution would not be cumulatively considerable. Cumulative impacts would be less than significant.

The proposed project would not result in a significant impact involving the cancellation of an open space contract. Cumulative projects which are subject to Williamson Act Contracts in nonrenewal status, would result in conflicts related to cancellation of an open space contract or a Farmland Security Zone Contract. As explained above under **Impact 4.2-6**, the project site is not subject to a Farmland Security Zone Contract and, therefore, no impacts related to cancellation of a Farmland Security Zone Contract are anticipated.

Because there are other factors, such as commodity pricing in the global market and water pricing and availability, that influence the feasibility of ongoing agricultural operations in Kern County, there may be a cumulatively significant loss in agricultural resources in Kern County for reasons that are outside the jurisdiction and control of the County. The Kern County General Plan (2004) forecast a net loss of 80,854 acres of Prime and Important Farmland and 55,000 acres of grazing lands in Kern County based on land use conversions consistent on existing land use plans, which would further reduce Kern County's agricultural lands. The 2022 Kern County General Plan/Housing Element Annual Report shows that 30,794 acres of Farmland have been lost since the 2004 projection. The Sustainable Groundwater Act mandates significant reductions in agricultural water that have forced farmland to be taken out of production. While the proposed project's existing 93.74 acres is currently being farmed, it has become a temporary use until the full impact of the SMGA is implemented. As discussed in **Section 4.10, Hydrology and Water Quality**, the submitted plans for all basins in Kern County have been found inadequate and further adjustments in agricultural water allocations that impact groundwater supplies for the proposed project are being contemplated by the State. The project proposal is a result of the imminent conversion of the land from productive agricultural use and not the cause of the conversion. Therefore, no replacement of the agricultural use through mitigation is warranted. Based on the county wide loss of agricultural land due to the Groundwater Sustainability Act reduction in water for agricultural use, drought conditions, the loss of is considered significant and unavoidable in spite of all feasible and reasonable mitigation considered.

Mitigation Measures

Implement **Mitigation Measures MM 4.2-1** through **MM 4.2-4**, and **MM 4.9-1** through **MM 4.9-3** as described above (see **Section 4.9, Hazards and Hazardous Materials**, for full mitigation measure text).

Level of Significance

The above-mentioned mitigation measures would minimize but not avoid impacts to cumulative agriculture impacts. The conversion of farmland would remain significant, and cumulative impacts would be significant and unavoidable.

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Section 4.3

Air Quality

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4.3.1 Introduction

This section of the Draft EIR describes the affected environment and regulatory setting of air quality for the proposed project. This section also evaluates the short- and long-term air quality impacts associated with development of the proposed project and, where necessary, mitigation measures are provided to avoid or lessen the impacts of the proposed project.

Information in this section is based primarily on the *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FirstCarbon Solutions [FCS] 2023a), located in Appendix B.1 of this Draft EIR and incorporated by reference herein. The report was prepared in accordance with the Kern County Planning Department's *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* (Kern County 2006) and the San Joaquin Valley Air Pollution Control District (SJVAPCD) *2015 Guidance for Assessing the Mitigation Air Quality Impacts* (SJVAPCD 2015). Other supporting SJVAPCD documents are included in Appendix B.2.

4.3.2 Environmental Setting

The California Air Resources Board (ARB) has divided California into regional air basins according to topographic drainage features. The project site is located in the Kern County portion of the San Joaquin Valley Air Basin (SJVAB) and is under the jurisdiction of SJVAPCD. The SJVAB includes the western half of Kern County. The SJVAB is separated from the Mojave Desert Air Basin to the southeast by the Tehachapi Mountains and the south end of the Sierra Nevada Mountains. The project site is located in unincorporated Kern County, approximately 1.3 miles south of the City of Bakersfield.

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 both 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 approximately 1.3 miles south 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) which is within the City of Bakersfield Sphere of Influence (SOI). The City of Arvin lies approximately 11 miles east of the project site, and the unincorporated community of Lamont is approximately 6 miles northeast of the project site. The project site is bound by Houghton Road to the north and Wible Road to the west and is situated approximately 1 mile west of State Route (SR) 99 and 8.75 miles east of Interstate 5 (I-5).

The project site is within the SJVAB, which is considered to be a Mediterranean climate area. Mediterranean climate zones are characterized by sparse rainfall, which occurs mainly in winter, and hot dry summers (SJVAPCD 2015). The SJVAB in particular is characterized by hot, dry summers and cool, rainy winters. The climate is a result of the topography and the strength and location of a semi-permanent, subtropical high-pressure cell.

Winds in the greater Bakersfield area typically blow from the northwest. The region's topographic features restrict air movement and channel the air mass toward the southeastern end of the San Joaquin Valley, where the project site is located (SJVAPCD 2015). This effect moderates air temperatures in the region, with average minimum winter temperatures ranging from the low 40°F (degrees Fahrenheit) to mid-40°F and average maximum summer temperatures ranging from low 90°F to 100°F (Western Regional Climate Center [WRCC] 2019).

The subtropical high-pressure cell is strongest during spring, summer, and fall and produces subsiding air, which can result in temperature inversions in the San Joaquin Valley. A temperature inversion can act like a lid, inhibiting vertical mixing of the air mass at the surface. Any emissions of pollutants can be trapped below the inversion. Most of the surrounding mountains are above the normal height of summer inversions (1,500 to 3,000 feet). Wintertime high-pressure events can often last many weeks with surface temperatures often lowering into 30°F. During these events, fog can be present and inversions are extremely strong. These wintertime inversions can inhibit vertical mixing of pollutants to a few hundred feet (SJVAPCD 2015).

Sensitive Receptors

Sensitive receptors are land uses or people considered to be more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions sources, or duration of exposure to air pollutants. Residences, schools, hospitals, convalescent homes, and parks are considered to be relatively sensitive to poor air quality because children, elderly people, and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

The project, as proposed by the project proponent, would be located on 93.74 acres of land on a 629.08 acre parcel of privately owned land located at the southern end of the San Joaquin Valley in unincorporated Kern County, California. Land uses within the region and the immediate area of the site primarily consist of agriculture with a mix of row crops and grazing land. Land uses surrounding the site include the following:

North—Houghton Road and Martin Feed Inc, an agricultural processing facility, is located north of the project site on the opposite side of Houghton Road. The facility contains several large agricultural structures and is surrounded by a fence.

South—An agricultural property used for row crops is located immediately south of the project site.

West—Wible Road and Martin Feed Inc, an agricultural processing facility, are located immediately west of the project site. The facility includes a canopy that covers processing equipment. An agricultural property used for orchards is located on the west side of Wible Road.

East—An agricultural property used for row crops is located immediately east of the project site.

The immediate project area has few nearby residences. The nearest residence is approximately 0.21 mile to the west. The nearest existing schools include General Shafter Elementary School, approximately 0.66 mile southeast from the proposed project site, Dolores S. Whitley Elementary located approximately 2.36 miles north, McKee Middle School is located approximately 2.9 miles northeast, Golden Valley High School is located approximately 3 miles northeast, and Greenfield Middle Schools is located approximately 4.9 miles northeast of the site. In addition, Kern High School District has identified a new school site located approximately 0.5 mile north of the project site at Wible Road and Engle Road.

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 United States 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 ozone (O₃), carbon monoxide (CO), nitrogen dioxide (NO₂), sulfur dioxide (SO₂), particulate matter (specifically PM₁₀ and PM_{2.5}), and lead (Pb). 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 proposed project and, thus, these pollutants are not addressed further in this Draft EIR.

Table 4.3-1, *National and State Criteria Pollutant Standards and San Joaquin Valley Air Pollution Control District Attainment Status*, presents both sets of ambient air quality standards (i.e., national and state) as well as attainment status for each of these standards within the SJVAPCD jurisdiction. 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.”

As shown in **Table 4.3-1**, *State and National Criteria Pollutant Standards and SJVAPCD Attainment Status*, the state attainment status for the project area, located in Kern County, is currently nonattainment/severe for 1-hour ozone standards, nonattainment for 8-hour ozone standards, nonattainment for 24-hour and annual arithmetic mean for PM₁₀ standards, and nonattainment for annual arithmetic mean for PM_{2.5} standards. The national attainment status for the project area is currently nonattainment/extreme for 8-hour ozone standards and nonattainment for 24-hour and annual arithmetic mean for PM_{2.5} standards. State and national standards of all of the other criteria pollutants are classified as attainment and/or unclassified (SJVAPCD 2020).

TABLE 4.3-1: STATE AND NATIONAL CRITERIA POLLUTANT STANDARDS AND SJVAPCD ATTAINMENT STATUS

Pollutant	Averaging Period	California Standards		National Standards	
		Concentration	Attainment Status	Primary	Attainment Status
Ozone (O ₃)	1-hour	0.09 ppm	Nonattainment/Severe	—	—
	8-hour	0.070 ppm	Nonattainment	0.075 ppm	Nonattainment/Extreme
Particulate Matter (PM ₁₀)	AAM	20 µg/m ³	Nonattainment	—	—
	24-hour	50 µg/m ³	Nonattainment	150 µg/m ³	Attainment
Fine Particulate Matter (PM _{2.5})	AAM	12 µg/m ³	Nonattainment	12.0 µg/m ³	Nonattainment
	24-hour	—	—	35 µg/m ³	Nonattainment
Carbon Monoxide (CO)	1-hour	20 ppm	Attainment	35 ppm	Attainment
	8-hour	9.0 ppm		9 ppm	
Nitrogen Dioxide (NO ₂)	AAM	0.030 ppm	Attainment	0.053 ppm	Attainment
	1-hour	0.18 ppm	Attainment	0.100 ppm	Attainment
Sulfur Dioxide (SO ₂)	AAM	—	—	0.030 ppm	Attainment
	24-hour	0.04 ppm	Attainment	—	—
	3-hour	—	—	0.5 ppm	Attainment
	1-hour	0.25 ppm	Attainment	0.075 ppm	Unclassified
Lead	30-day average	1.5 µg/m ³	Attainment	—	—
	Calendar quarter	—	—	1.5 µg/m ³	Attainment
	Rolling 3-month average	—	—	0.15 µg/m ³	Attainment
Sulfates	24-hour	25 µg/m ³	Attainment	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 µg/m ³)	Unclassified		
Vinyl Chloride	24-hour	0.01 ppm (42 µg/m ³)	Attainment		

TABLE 4.3-1: STATE AND NATIONAL CRITERIA POLLUTANT STANDARDS AND SJVAPCD ATTAINMENT STATUS

Pollutant	Averaging Period	California Standards		National Standards	
		Concentration	Attainment Status	Primary	Attainment Status
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient: 0.23/kilometer-visibility of 10 miles or more (0.07–30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%.	Unclassified		

Notes:

AAM = annual arithmetic mean; ppm = parts per million; $\mu\text{g}/\text{m}^3$ = micrograms per cubic meter

SOURCE: San Joaquin Valley Air Pollution Control District (SJVAPCD) 2020.

Local Air Quality

To assess localized air quality impacts, the CO significance thresholds are based on the state CO standards, shown previously in **Table 4.3-1**, which are 20 parts per million (ppm) for 1-hour CO concentration levels and 9 ppm for 8-hour CO concentration levels. If CO concentration levels with the proposed project would be less than the standards, then there would be no significant impact on local air quality. If future CO concentrations with the proposed project would be above the standards, then the increase due to the project would determine if the impact would be significant or less than significant. A project would have a significant impact on local air quality if the project would result in an increase of 1 ppm or more for the 1-hour averaging time or 0.45 ppm or more for the 8-hour averaging time.

Ambient Air Monitoring

ARB has established and maintains a network of sampling stations (called the State and Local Air Monitoring Stations [SLAMS] network) that work in conjunction with local air pollution control districts and air quality management districts to monitor ambient pollutant levels. The SLAMS network in Kern County consists of 10 stations that monitor various pollutant concentrations. The locations of these stations were chosen to meet monitoring objectives, which, for the SLAMS network, call for stations that monitor the highest pollutant concentrations, representative concentrations in areas of high population density, the impact of major pollution emissions sources, and general background concentration levels.

The primary pollutants of concern in the project area are ozone, PM_{10} , and $\text{PM}_{2.5}$ because the San Joaquin Valley is designated nonattainment for these pollutants by the EPA and/or ARB. Ten ambient air monitoring stations operate in Kern County, eight of which are in the valley portion of Kern County and

two of which are in the desert portion of Kern County. Air quality data statistics from the Bakersfield-California Avenue ambient air monitoring station were used as representative of the project area's environmental setting due to the proximity of the monitoring station to the project site (approximately 30 miles away). Ambient monitoring data obtained for 2020 through 2022 is summarized below in **Table 4.3-2, Air Quality Data Summary (2020-2022)**.

TABLE 4.3-2: AIR QUALITY DATA SUMMARY (2020-2022)

Pollutant	Monitoring Year		
	2020	2021	2022
Ozone (O₃)			
Max 1 Hour (ppm)	0.118	0.10	0.108
Days > State Standard (0.09 ppm/1 hour)	8	6	6
Suspended Particulate Matter (PM_{2.5})			
Annual Average (µg/m ³)	19.7	16.6	ID
24 Hour (µg/m ³)	150.7	72.3	58.1
Suspended Particulate Matter (PM₁₀)			
Annual Average (ppm)	46.0	49.0	45.9
24 Hour (µg/m ³)	193.8	437.5	133.0
Days > State Standard (50 µg/m ³)	18	124	135
Days > National Standard (150 µg/m ³)	1	3	0
Notes:			
ID = insufficient data			
ppm = parts per million by volume			
µg/m ³ = micrograms per cubic meter			
Source: FirstCarbon Solutions (FCS) 2023.			

Criteria Air Pollutants

The following is a general description of the source and health effects from the government regulated criteria air pollutants of O₃; reactive organic gases (ROGs) and volatile organic compounds (VOCs), CO, NO₂, SO₂, particulate matter (specifically PM₁₀ and PM_{2.5}), sulfates, and Pb.

Ozone

O₃ 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 (UV-B).

“Bad” ozone is what is known as a photochemical pollutant, which needs the combination of 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.

Health Effects

While ozone in the upper atmosphere protects the earth from UV-B, 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 levels of ozone 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

Hydrocarbons are organic gases that are formed solely of hydrogen and carbon. There are several subsets of organic gases including ROG and VOCs, which include all hydrocarbons, except those exempted by ARB. Therefore, ROG is 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.

Health Effects

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 toxic air contaminants (TACs). An example is benzene, which is a carcinogen. The health effects of individual ROGs are described under the “Toxic Air Contaminants” heading below.

Carbon Monoxide

Carbon monoxide (CO) is emitted by mobile and stationary sources 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 percent of all CO emissions nationwide. In cities, automobile exhaust can cause as much as 95 percent 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.

Health Effects

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 lower 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 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 percent) 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.

Health Effects

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 irritation of the lungs, 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 (California Air Pollution Control Officers Association [CAPCOA] 2016).

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 sulfur dioxide (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.

Health Effects

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 2.5 microns or less (PM_{2.5}), which is a significant health concern and a main contributor to poor visibility (see also the discussion of health effects of particulate matter).

SO₂ not only has a bad odor but can irritate the respiratory system. Exposure to high concentrations for short periods of time 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 time 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 very 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})

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.

Health Effects

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 (ARB 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 percent 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 percent 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 diesel particulate matter (DPM) causes about 250 excess cancer cases per year in California.

Sulfates

Sulfates (SO₄²⁻) are particulate product that comes from the combustion of sulfur-containing fossil fuels. When sulfur monoxide or SO₂ is exposed to oxygen, it precipitates out into sulfates (SO₃ or SO₄).

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.

Health Effects

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, SO₂ tends to have an even more toxic effect. In addition to particulates, SO₃ and SO₄ are also precursors to acid rain. Sulfur oxide (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 (ARB 2009).

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.

Health Effects

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 2012).

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; and
- 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; and
- 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.

Other Pollutants

The following is a general description of the source and health effects from other pollutants of concern, including other pollutants of hydrogen sulfide (H₂S), vinyl chloride, visibility-reducing particles, TACs, DPM, airborne fungus (Valley Fever), and asbestos.

Hydrogen Sulfide

Hydrogen sulfide (H₂S) is associated with geothermal activity, oil and gas production, refining, sewage treatment plants, and confined animal feeding operations. H₂S in the atmosphere would likely oxidize into SO₂ that can lead to acid rain. At low concentrations H₂S, 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 ppm can cause death) hydrogen sulfide is extremely hazardous, especially in enclosed spaces. Occupational Safety and Health Administrations (OSHA) has the primary responsibility for regulating workplace exposure to H₂S.

Health Effects

Exposure to low concentrations of H₂S may cause irritation to 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 H₂S (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 H₂S (0.00011–0.00033 ppm). Deaths due to breathing in large amounts of H₂S 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

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.

Health Effects

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 (EPA 2000):

- 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 (EPA 2000):
- 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 (EPA 2000):

- Several case reports suggest that male sexual performance may be affected by vinyl chloride. However, these studies are limited by 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.

Visibility-Reducing Particles

Visibility-reducing particles is 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.

Toxic Air Contaminants

TACs, as known under the California CAA of 1988 (CCAA), are 10 pollutants have been identified through ambient air quality data as posing the most substantial health risk in California. Direct exposure to these pollutants has been shown to cause cancer, birth defects, damage to brain and nervous system and respiratory disorders. The ARB provides TAC emission inventories for only the larger air basins.

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 that are 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 proposed project would not emit TACs with the exception of 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 percent of the Statewide total, with an additional 71 percent attributed to other mobile sources such as construction and mining equipment, agricultural equipment, and transport refrigeration units. Stationary sources contribute about 5 percent of total DPM.

Health Effects

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 percent 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 – ALA 2001).

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 percent 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 (Valley Fever Center for Excellence 2019a).

Valley Fever is not contagious and, therefore, cannot be passed on from person to person. Most of those who are infected would recover without treatment within six months and would have a 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 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 (Valley Fever Center for Excellence 2019a).

Table 4.3-3, *Range of Valley Fever Cases*, presents the range of Valley Fever cases based on research conducted by the Valley Fever Center for Excellence.

TABLE 4.3-3: RANGE OF VALLEY FEVER CASES

Infection Classification	Percent of Total Diagnosed Cases
Unapparent infections	60 percent
Mild to moderate infections	30 percent
Infections resulting in complications	5–10 percent
Fatal infections	<1 percent

Source: Valley Fever Center for Excellence 2019b.

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 percent 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 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. According to information provided by the California Department of Conservation, Division of Mines and Geology, the project site is not located in an area where naturally occurring asbestos is likely to be present (California Department of Conservation [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 Center for Disease Control (CDC), older adults and people who have severe underlying medical conditions like heart or lung disease or diabetes seem to be at higher risk for developing more serious complications from COVID-19 illness. Symptoms may appear 2 to 14 days after the exposure to the virus and may include, but are not limited to: fever or chills, cough, shortness of breath or difficulty breathing, fatigue, muscle or body aches, headache, loss of

taste or smell, sore throat, congestion or runny nose, nausea or vomiting, and diarrhea (CDC 2020a). According to the CDC, COVID-19 is believed to spread between people who are in close contact with one another (within about 6 feet) through respiratory droplets produced when an infected person coughs, sneezes, or talks (CDC 2020b). 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).

4.3.3 Regulatory Setting

In California, air quality is regulated by several agencies, including EPA, ARB, and local air districts such as the SJVAPCD. Each of these agencies develops rules and/or regulations to attain the goals or directives imposed upon them through legislation. Although EPA regulations may not be superseded, some State and local regulations may be more stringent than federal regulations. The project site is located within the SJVAB, which is under the jurisdiction of the SJVAPCD. The SJVAPCD has developed California Environmental Quality Act (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.

State

California Air Resources Board

The ARB, a department of the California Environmental Protection Agency (Cal/EPA), oversees air quality planning and control throughout California by administering the SIP. Its primary responsibility lies in ensuring implementation of the 1989 amendments to the CCAA, responding to the federal CAA requirements and regulating emissions from motor vehicles sold in California. The ARB also sets fuel specifications to further reduce vehicular emissions.

The amendments to the CCAA establish the CAAQS, and a legal mandate to achieve these standards by the earliest practical date. These standards apply to the same criteria pollutants as the federal CAA, and also include sulfates, visibility-reducing particulates, hydrogen sulfide and vinyl chloride (there are currently no NAAQS for these latter pollutants). They are also generally more stringent than the national standards in most cases, although recently promulgated NAAQS for 1-hour NO₂ and SO₂ can in some instances be more stringent than the respective CAAQS.

The ARB is also responsible for regulations pertaining to TACs. The Air Toxics “Hot Spots” Information and Assessment Act (Assembly Bill [AB] 2588, 1987, Connelly) was enacted in 1987 as a means to establish a formal air toxics emission inventory risk quantification program. AB 2588, as amended, establishes a process that requires stationary sources to report the type and quantities of certain substances their facilities routinely release into their local air basin. Each Air Pollution Control District (APCD) and Air Quality Management District (AQMD) in the State ranks the data into high, intermediate and low priority categories. When considering the ranking, the potency, toxicity, quantity, volume and proximity of the facility to receptors are given consideration by an air district.

The ARB also has on- and off-road engine emission reduction programs that would indirectly affect the proposed project’s emissions through the phasing in of cleaner on- and off-road engines. Additionally, ARB has a Portable Equipment Registration Program that allows owners or operators of portable engines and associated equipment to register their units under a Statewide program to operate their equipment which must meet specified program emission requirements, throughout California without having to obtain individual permits from local air districts. Since the proposed project is not proposing to install any applicable stationary sources, the AB 2588 program would not apply to the proposed project.

In 2007, the ARB enacted a regulation for the reduction of DPM and criteria pollutant emissions from in-use off-road diesel-fueled vehicles (13 California Code of Regulations [CCR] Article 4.8, Chapter 9, § 2449). This regulation provides target emission rates for particulate matter and NO_x emissions for owners of fleets of diesel-fueled off-road vehicles. It applies to equipment fleets of three specific sizes, and the target emission rates are reduced over time with full implementation by 2023 for large and medium fleets and 2028 for small fleets.

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 having to comply with Title V permitting requirements under the Extreme nonattainment designation.

Title V does not impose any new air pollution standards, require 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 Renewables Portfolio Standard Program

Established in 2002 under SB 1078 and accelerated by SB 107 [2006] and SB 2 [2011], California's Renewable Portfolio Standard (RPS) obligates investor-owned utilities, energy service providers, and community choice aggregators to procure 33 percent of their electricity from renewable energy sources by 2020. In 2015, SB 350 further increased the Renewables Portfolio Standard to 50 percent by 2030. The legislation also included interim targets of 40 percent by 2024 and 45 percent by 2027. The California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) are jointly responsible for implementing the program. SCE is on track to meeting these obligations, and currently has contracts to generate 41.4 percent of its electricity from renewable resources by the year 2020 (CPUC 2017). SB 100, signed into law in September 2018, requires California utilities to increase the percentages of renewable energy sold to retail customers. The new targets are for 50 percent renewable resources by December 31, 2026, 60 percent by December 31, 2030, and 100 percent from eligible renewable energy resources and zero-carbon resources by 2045.

Local

Construction and operation of the warehouse facility would be subject to policies and regulations contained within the general and specific plans, including the Metropolitan Bakersfield General Plan, Kern County Zoning Ordinance, and the Kern County Code of Building Regulations, which include policies, goals, and implementation measures related to air quality. The Kern County General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development, such as the proposed project. These measures are not listed below, but as stated in Chapter 2, *Introduction*, all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Metropolitan Bakersfield General Plan (Unincorporated Area)

The Bakersfield Metropolitan General Plan states that planning for compliance with the federal and State ambient air quality standards has been assigned to the SJVAPCD, who, with the assistance of the Kern Council of Governments (Kern COG), prepared the Air Quality Attainment Plan (AQAP) for ozone and carbon monoxide and PM₁₀ Nonattainment Area Plan (NAP) for the SJVAB. The AQAP/NAP focuses on air pollutants for which there are federal standards. Among the actions recommended in the AQAP/NAP are policies and programs which localities can undertake to help improve air quality. Local jurisdictions are encouraged to incorporate these policies in their general plans, and to adopt supplementary policies as appropriate.

Chapter V: Conservation/Air Quality

Goals

- Goal 1** Promote air quality that is compatible with health, wellbeing, 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 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 Air Pollution Control District (SJVAPCD) 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 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:
- a. Alternative access routes to reduce traffic congestion.
 - b. Development phasing to match road capacities.
 - c. Buffers include increasing 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 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

SJVAPCD attains and maintains air quality conditions in the SJVAB through a comprehensive program of planning, regulation, enforcement, technical innovation, and promotion of the understanding of air quality issues. The clean air strategy of SJVAPCD includes preparation of plans for attainment of ambient air quality standards, adoption and enforcement of rules and regulations concerning sources of air pollution, and issuance of permits for stationary sources of air pollution. SJVAPCD also inspects stationary sources of air pollution and responds to citizen complaints; monitors ambient air quality and meteorological conditions; and implements programs and regulations required by the federal CAA and CCAA.

The SJVAPCD has developed the following plans to attain and maintain the State and federal standards:

1. The 2018 Plan for the 1997, 2006, and 2012 PM_{2.5} Standard.
2. The 2016 Plan for the 2008 8-hr Ozone Standard.
3. The 2013 Plan for the Revoked 1-hour Ozone Standard.
4. 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 proposed project include, but are not limited to the following:

Rule 4102–Nuisance

A person shall not discharge from any source whatsoever such quantities of air contaminants or other materials which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public or which endanger the comfort, repose, health or safety of any such person or the public or which cause or have a natural tendency to cause injury or damage to business or property (SJVAPCD 1992).

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 4701—Internal Combustion Engines—Phase 1

This rule limits the emissions of nitrogen oxides (NO_x), carbon monoxide (CO), and VOC from stationary internal combustion engines rated at greater than 50 brake horsepower that require a permit to operate.

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 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 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.

The purpose of the Indirect Source Review (ISR) is to reduce emissions of NO_x and PM₁₀ from new development projects. Rule 9510 places application and emission reduction requirements on certain development projects to reduce emissions through on-site mitigation, off-site SJVAPCD-administered projects, or a combination of the two. The project proponent is required to submit an air impact assessment application concurrent with the last discretionary approval by the County pursuant to Rule 9510's requirements.

Although compliance with Rule 9510 is separate from the CEQA process, control measures used to comply with the Rule 9510 are considered mitigation to a less than significant impact under CEQA.

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 proposed project are the following:

- Rule 8011–General Requirements
- Rule 8021–Construction, Demolition, Excavation, Extraction, and Other Earthmoving Activities
- Rule 8031–Bulk Materials
- Rule 8041–Carryout and Trackout
- Rule 8051–Open Areas
- Rule 8061–Paved and Unpaved Roads
- Rule 8071–Unpaved Vehicle/Equipment Traffic Areas

Indirect Source Mitigation Fee

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 SJVAPCD included a requirement in the adopted 2003 PM₁₀ 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. Senate Bill (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 PM₁₀ 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 proposed 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 percent of construction exhaust NO_x, 45 percent of construction exhaust PM₁₀; 33 percent of operational NO_x over 10 years; and 50 percent of operational PM₁₀ over 10 years.

Naturally Occurring Asbestos

Asbestos Dust Mitigation Plan

Asbestos Dust Mitigation Plan is required for grading/construction projects which involve the disturbance of asbestos-containing soil in areas greater than one acre. Please note: Grading/construction projects which involve the disturbance of asbestos-containing soil in areas greater than one acre. Please note: The Asbestos

Dust Mitigation Plan is required for grading/construction projects which involve the disturbance of asbestos-containing soil in areas greater than one 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 perm is required prior to obtaining a building department demolition permit.

Emission Reduction Agreements

The implementation, as mitigation, of a Development Mitigation Contract or Voluntary Emission Reduction Agreement (VERA) to reduce criteria pollutants of NOX, ROGs, 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 Development Mitigation Contracts (DMC). The emission reductions required by a DMC 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 DMC 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 NOX and PM resulting from project construction and operations. When adopting the ISR and the subsequent VERA/DMC programs, the District acknowledges that as ROG is a precursor to ozone, the reductions are not required in the ISR. In the VERA/DMC, the reductions are achieved by increasing the NOX and PM tonnage for project levels (SJVAPCD 2005). As the actual amount of ROG reductions achieved from NOX 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.

Air Quality Conformity Determination for Transportation Plans and Programs

The CAA amendments of 1990 require a finding to be made stating that any project, program, or plan subject to approval by a metropolitan planning organization conforms to air plans for attainment of air quality standards. Kern COG is designated the Regional Transportation Planning Agency and Metropolitan Planning Organization for Kern County. In that capacity, Kern COG models air quality projections on population projections in conjunction with current general plan designations and estimated vehicle miles as well as the current Regional Transportation Plan (RTP) and the federal transportation plan for Kern County. These results are compared to pollutant budgets for each basin approved by the EPA in the 1999 base year.

Kern County is contained within two air basins: SJVAB and the Mojave Desert Air Basin. Each air basin has its own plans and pollutant budgets. Kern COG makes conformity findings for each air basin.

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 development of the planned multimodal transportation systems in Kern County (Kern COG 2022). It has been developed through a federally required 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 SB 375. The ARB set targets for Kern's greenhouse gas (GHG) emissions reductions from passenger vehicles and light-duty trucks at 9 percent per capita by 2020 and 15 percent per capita by 2035 as compared to 2005.

The plan is accompanied by a program level environmental document that analyzes cumulative impacts, and the regional air quality conformity analysis required by federal regulations. The conformity report includes a regional emissions analysis was conducted for the years 2022, 2023, 2024, 2025, 2026, 2029, 2031, 2037 and 2046 for each applicable pollutant. The conformity findings conclude that the FTIP and RTP result in emissions that are less than the emission budgets of baseline emissions for CO, VOC, NO_x, and PM₁₀ (Kern COG 2022). The 2023 FTIP and the 2022 RTP would not impede and would support timely implementation of the Transportation Control Measures (TCMs) that have been adopted as part of applicable air quality implementation plans.

Kern County Public Health Services Department

Section 101080 of the California Health and Safety Code authorizes a local health officer to declare a local health emergency in the health officer's jurisdiction, or any part thereof, when the health officer determines that there is an imminent and proximate threat of the introduction of any contagious, infectious, or communicable disease, chemical agent, noncommunicable biological agent, toxin, or radioactive agent. On April 2, 2020, the Kern County Health Officer issued an Order that was implemented to garner additional tools to assist with Kern County's compliance with Executive Order N-33-20 issued by the Governor of the State of California and the California Department of Public Health's gathering guidance due to COVID-19. The April 2, 2020, order was rescinded on May 2, 2020 by the Kern County Health Officer. The Kern County Public Health Services Department and the Kern County Health Officer continue to provide guidance and recommendations for residents and business of Kern County to safely conduct business, including construction activities, during this COVID-19 pandemic.

4.3.4 Impacts and Mitigation Measures

This section describes the impact analysis relating to air quality for the proposed project including the methods used to determine the impacts of the proposed project and lists the thresholds used to conclude whether an impact would be significant. Where warranted, measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Methodology

The air quality significance criteria were developed considering the CEQA significance criteria developed by the local air quality district in the project area, approved CEQA air quality checklists, and considering other federal criteria. The analysis presented within this section is based on both qualitative and quantitative

approaches for determining air quality impacts associated with construction, operation, and maintenance of the proposed project. The findings in the Air Quality and GHG Technical Report prepared for the proposed project (located in Appendix B of this Draft EIR), which was prepared 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 proposed 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 project in relation to Kern COG conformity and traffic analysis zones (TAZs).
- 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 regional basin, Triennial Plan, and SIP.

Pollutant Emissions

Refer to Appendix B for details regarding the quantitative assessment of pollutant emissions, including equipment fleet, hours of operation, Vehicle Miles Traveled (VMT) and other assumptions used.

Construction

Construction of the proposed project would generate emissions of ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} that could result in short-term air quality effects during the construction period. Emissions would originate from off-road equipment exhaust, employee and haul truck vehicle exhaust (on-road vehicles), fugitive dust from site grading and earth movement, and fugitive dust from concrete batching, if required.

County guidance states that an air quality assessment should include estimates of short-term construction emissions in tons per year. The estimates must include site grading and building construction emissions, with comparison to the adopted County CEQA thresholds and the applicable air district (SJVAPCD) thresholds. Per the County's guidance, all assumptions should be clearly presented, including length of each construction phase, equipment that would be used during each phase, and the amount of soil disturbance, including any import or export of soil. The emission factors used to estimate emissions should be clearly documented, and the model output should be included in the report. The *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FCS, 2023) provided in Appendix B of this EIR details the assumptions used to estimate construction emissions and includes relevant model output files.

Operation

Operation of the proposed project would generate emissions of ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5} that could result in long-term impacts on ambient air quality. Long-term operational emissions associated with the proposed project were calculated using CalEEMod, Version 2022.1.19. Long-term emissions would be predominately caused by mobile source emissions. Mobile sources for the proposed project would primarily be motor vehicles (automobiles and heavy-duty trucks) traveling to and from the project site. Motor vehicles

may be fueled with gasoline, diesel, or alternative fuels. The *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FCS, 2023a) provided in Appendix B of this Draft EIR details the assumptions used to estimate operational emissions and includes relevant model output files.

Health Risk Assessment

A Health Risk Assessment (HRA) associated with construction emissions was prepared and follows the methodologies prescribed in the Cal/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 Model (AERMOD) dispersion model. HRA assumptions and results are provided in Appendix B of this Draft EIR.

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. Assumptions are detailed as part of Appendix B to this Draft EIR. Note that PM₁₀ exhaust emissions are used as a surrogate for DPM based on guidance from the OEHHA.

Ambient Air Quality Analysis

Kern County Planning Department's *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* requires a dispersion modeling analysis of the maximum 24-hour average concentrations of PM₁₀ and PM_{2.5} resulting from construction in comparison to applicable ambient air quality standards and thresholds; therefore, an Ambient Air Quality Analysis (AAQA) was performed for the proposed project during construction only, as operation of the proposed project would be minimal, consisting of routine inspection and maintenance only. The purpose of the AAQA is to determine whether the proposed project's construction emissions would cause or contribute to exceedances of any CAAQS or NAAQS during construction. A screening AAQA was performed, following the SJVAPCD's recommended two-step process to determine impacts. Modeling assumptions and results of the localized analysis are provided in Appendix B of this EIR.

CO 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 proposed 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, that 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 proposed 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 Valley Fever exposure, the potential for Valley Fever exposure as a result of the proposed 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 *CI* fungus during construction activities.

Asbestos

There are no quantitative thresholds related to receptor exposure to asbestos.

COVID-19

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 would exceed any of the following adopted thresholds:

- i. 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
 - c. Expose sensitive receptors to substantial pollutant concentrations;
 - d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

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 (AQP) if it were consistent with growth assumptions used to form the applicable AQP and if the project implements all reasonably available and feasible air quality control measures.

Air quality impacts are controlled through policies and provisions of the SJVAPCD, the Kern County General Plan, and the Kern County Code of Building Regulations. The CCAA requires air pollution control districts with severe or extreme air quality problems to provide for a 5 percent reduction in nonattainment emissions per year. The Attainment Plans prepared for the SJVAPCD comply with this requirement. The ARB reviewers approve or amend the document and forward the plan to the EPA for final review and approval within the SIP.

Implementation of the proposed project would generate both temporary (construction) and long-term (operational) emissions, which could conflict with or obstruct with an applicable AQP. As such, the proposed project impacts could be potentially significant before mitigation.

Air quality impacts are controlled through policies and provisions of the SJVAPCD, the Kern County General Plan, and the Kern County Code of Building Regulations. Each project should also demonstrate consistency with the SJVAPCD's adopted AQP for ozone and PM₁₀. The SJVAPCD is required to submit a "Rate of Progress" document to the ARB that demonstrates past and planned progress toward reaching attainment for all criteria pollutants. The CCAA requires air pollution control districts with severe or extreme air quality problems to provide for a 5 percent reduction in nonattainment emissions per year. The AQP prepared for the San Joaquin Valley by SJVAPCD complies with this requirement. ARB reviewers approve or amend the document and forward the plan to the EPA for final review and approval within the SIP.

This document proposes the following criteria for determining project consistency with the current AQPs:

- **Criterion 1:** Will the project support the primary goals of the AQP?
- **Criterion 2:** Will the project comply with applicable control measures in the AQP?
- **Criterion 3:** Will the project disrupt or hinder implementation of any AQP control measures?

Required Evaluation Guidelines

CEQA Guidelines and the CAA (Sections 176 and 316) contain specific references regarding the need to evaluate consistencies between the proposed project and the applicable AQP for the projects. To accomplish this, the ARB has developed a three-step approach to determine project conformity with the applicable AQP:

1. *Determination that an AQP is being implemented in the area where the project is being proposed.* SJVAPCD's most recently adopted air quality management plan is its current, modified 2016 8-hour AQP that is approved by the ARB and EPA for the 2008 8-hour O₃ standard.
2. *The project must be consistent with the growth assumptions of the applicable AQP.* The Kern COG growth modeling for the 2018 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) provides for future employment/population factors.
3. *The project must contain in its design all reasonably available and feasible air quality control measures.* The proposed project incorporates Regulation VIII dust measures and would comply with Rule 9510.

Implementation of the proposed project would generate both temporary construction and long-term operational emissions, which could conflict with or obstruct air quality attainment and maintenance planning efforts. Consistency with AQPs is typically conducted based on a comparison of project-generated growth in employment, population, and VMT within the region, which is used for development of the emissions inventories contained in the AQPs. In addition, projects that exceed applicable project-level CEQA significance thresholds would also be considered to have a potentially significant cumulative impact to regional air quality, which could interfere with regional air quality attainment and maintenance planning efforts.

The proposed project is not consistent with current zoning and general plan land use designations. As such, the proposed project would not automatically be considered consistent with employment and VMT growth projections identified in local plans, upon which applicable ambient AQPs are based. However, as noted below, project-generated emissions would not exceed SJVAPCD's project-level significance thresholds and impacts would be less than significant.

Under current policies, only after a General Plan Amendment (GPA) is approved can housing and employment assumptions be updated to reflect capacity changes. Since the proposed project requires a GPA from R-IA to LI. The existing growth forecast would eventually be modified to reflect these changes.

Construction

The proposed project would comply with all applicable SJVAPCD rules and regulations. The proposed project would not exceed any SJVAPCD significance thresholds on an annual basis, as shown in **Table 4.3-6** and **Table 4.3-7**. Additionally, as discussed in more detail below under the localized impact analysis, the emissions from construction of the proposed project would not exceed the SJVAPCD daily localized significance thresholds for NO_x, CO, and PM₁₀. Therefore, emissions are presumed to be below levels that

would result in localized exceedances of the Ambient Air Quality Standards (AAQS) and a project-specific AAQA was not required. Moreover, emissions would be further reduced with the required compliance of the proposed project with SJVAPCD's Rule 9510 (ISR Rule), which requires projects to reduce NO_x emissions by 20 percent. Therefore, the proposed project would not result in emissions of a magnitude that would obstruct the air quality planning goals set forth by the SJVAPCD and would have a less than significant impact. During construction, the proposed project would incorporate **Mitigation Measure MM 4.3-1** through **MM 4.3-9** in order to further reduce impacts from fugitive dust, including applying dust suppressant material; limiting vehicle speeds; and watering exposed areas during construction, among others.

Because the proposed project does not include any stationary sources, the stationary control measures identified in the SJVAPCD's *2016 Ozone Plan* and Kern County's *2017 Ozone Attainment Plan* are not applicable. Similarly, the proposed project's construction emissions from heavy-duty, off-road equipment would not exceed the SJVAPCD's significance thresholds, as shown in **Table 4.3-6**. The mobile source control measures pertaining to heavy-duty, off-road equipment identified in the SJVAPCD's *2016 Ozone Plan* are also not applicable. Therefore, the proposed project's construction activities would neither conflict with nor obstruct implementation of the applicable AQPs.

Overall, based on the above, with implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-9**, any potential impacts to criteria pollutants designated as nonattainment within the SJVAPCD would be reduced and construction of the proposed project would not result in a conflict with or obstruct implementation of applicable AQPs. Therefore, the impacts from construction would be less than significant.

Operation

The proposed project is not consistent with the existing land use designations in the current Metropolitan Bakersfield General Plan and would require a zoning change. As such the proposed project introduces employment and an increase in VMT and associated criteria pollutant emissions. When compared against the current zoning of the project site that would allow for the development of agricultural uses, the facility would result in increased emissions from baseline emissions for mobile and area source. However, as shown in **Table 4.3-7**, the proposed project would not exceed the SJVAPCD's regional operational threshold for any criteria air pollutant. Operational emissions would be further reduced with implementation of mitigation measures, which would be implemented to further reduce impacts to criteria pollutants designated as nonattainment within the SJVAPCD. Therefore, impacts would be less than significant with mitigation measures incorporated.

Mitigation Measures

MM 4.3-1 The proposed project shall continuously comply with the following: Construction and operation of the proposed project shall be conducted in compliance with applicable rules and regulations set forth by the San Joaquin Valley Air Pollution Control District (SJVAPCD). Dust control measures outlined below shall be implemented where they are

applicable and feasible. The list shall not 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. 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.
 2. All clearing, grading, earthmoving, 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.
 3. All fine material transported off-site shall be either sufficiently watered or securely covered to prevent excessive dust.
 4. Areas disturbed by clearing, earthmoving, or excavation activities shall be minimized at all times.
 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, earthmoving 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 open areas.
 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. Onsite vehicle speed shall be limited to 15 miles per hour.
 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.

MM 4.3-2

Prior to issuance of grading or building permits, the project proponent shall prepare a comprehensive Fugitive Dust Control Plan for review and approval by the San Joaquin Valley Air Pollution Control District and submitted to the Kern County Planning and Natural Resources Department. The Plan shall take into consideration grading and construction schedule, seasonal winds, site-specific wind patterns and conditions to ensure adequate measures are implemented to manage fugitive dust. The Dust Control Plan shall include:

- a. Name(s), address(es), and phone number(s) of person(s) responsible for the preparation, submission, and implementation of the plan.
- b. Description and location of operation(s).
- c. Listing of all fugitive dust emissions sources included in the operation.
- d. 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 off-site 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 material excavated or graded will be watered to prevent excessive dust. Watering will occur as needed with complete coverage of disturbed areas. The excavated soil piles will be watered as needed to limit dust emissions to less than 20% opacity or covered with temporary coverings.
 4. Construction activities that occur on unpaved surfaces will be discontinued during windy conditions when winds exceed 25 miles per hour and those activities cause visible dust plumes that exceed the SJVAPCD 20% opacity standard.
 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. All haul trucks hauling soil, sand, and other loose materials on public roads shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).

8. Soil loads should be kept below 6 inches or the freeboard of the truck.
9. Drop heights when loaders dump soil into trucks shall not exceed 5 feet above the truck.
10. Gate seals should be tight on dump trucks.
11. Traffic speeds on unpaved roads shall be limited to 15 miles per hour.
12. All grading activities shall be suspended when visible dust emissions exceed 20%.
13. Other fugitive dust control measures as necessary to comply with San Joaquin Valley Air Pollution Control District Rules and Regulations.

MM 4.3-3 The proposed project shall continuously comply with the following: The project proponent and/or its contractors shall implement the following measures during construction of the project:

- a. All equipment shall be maintained in accordance with the manufacturer's specifications.
- b. Construction-related equipment, including heavy-duty equipment, motor vehicles, and portable equipment, shall be turned off when not in use for extended periods of time.
- c. Construction equipment shall operate longer than eight cumulative hours per day.
- d. Electric equipment shall be used whenever possible in lieu of diesel- or gasoline-powered equipment.
- e. All construction vehicles shall be equipped with proper emissions control equipment and kept in good and proper running order to substantially reduce NOX emissions.
- f. On-road and off-road diesel equipment shall use diesel particulate filters (or the equivalent) if permitted under manufacturer's guidelines.
- g. Tier 3 engines shall be used on all equipment when available.

MM 4.3-4 All required landscaping along major and arterial roadways will be designed with native drought-resistant species (plants, trees, and bushes) to reduce demand for gas-powered landscape maintenance equipment.

MM 4.3-5 Prior to issuance of any grading or construction permits the Owner/Operator shall enter into an Developer Mitigation Agreement (DMA) with the San Joaquin Valley Air Pollution Control District. The DMA is to mitigate criteria emissions of the warehouse project implementation, not required to be offset under a District rule, and for Project vehicle and all other mobile source emissions. The Owner/operator shall pay fees to fully offset 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) (including as applicable mitigating for reactive organic gases by additive reductions of particulate matter of 10 microns or less in diameter) (collectively, "designated criteria emissions") to avoid any net increase in these pollutants. The air quality mitigation fee shall further be paid prior to the approval of any construction or grading approval and shall be used to reduce designated criteria emissions to fully offset Project emissions that are not otherwise required to be fully offset by District permit rules and regulations.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5**, impacts would be less than significant.

Impact 4.3-2: The project would 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 would exceed any of the following adopted thresholds:

i. 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 AAQA be performed to determine whether emission increases from a project will cause or contribute to a violation of the AAQS 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 Mitigating 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 TACs:

- Carcinogens: Maximally exposed individual risk equals or exceeds 20 in one million.
- Non-Carcinogens, Acute: Hazard Index equals or exceeds 1 for the maximally exposed individual.
- Non-Carcinogens, Chronic: Hazard Index equals or exceeds 1 for the maximally exposed individual.

Regional Emissions

Air pollutant emissions have regional effects and localized effects. This analysis assesses the regional effects of the proposed project's criteria pollutant emissions in comparison to SJVAPCD thresholds of significance for short-term construction activities and long-term operation of the proposed project.

The primary pollutants of concern during project construction and operation are ROG, NO_x, PM₁₀, and PM_{2.5}. The SJVAPCD GAMAQI adopted in 2015 contains thresholds for CO, NO_x, ROG, SO_x, PM₁₀, and PM_{2.5} (SJVAPCD 2015).

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. Therefore, ROG and NO_x are termed ozone precursors. The SJVAB often exceeds the State and national ozone standards. Therefore, if the proposed project emits a substantial quantity of ozone precursors, the proposed 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 proposed project does not contain sources that would produce substantial quantities of SO₂ emissions during construction and operation.

Construction Emissions

The proposed project construction would start with site preparation beginning in July of 2024 and would end in September 2025. In addition, the proposed project would require the construction of approximately 5.54 acres of off-site dedicated improvements, located along the project frontage to Houghton Road and Wibble Road. The off-site construction would occur in concurrence with on-site construction. The proposed construction schedule and equipment assignment presented in Appendix B are based on CalEEMod defaults with a building construction duration to match the applicant's schedule for the warehouse construction, by shortening the construction slightly appropriate to the type of construction and assuming that painting and paving occur at the same time.

Table 4.3-4: *Construction Air Pollutant Emissions* shows that criteria pollutant emissions would not exceed any of the SJVAPCD's regional thresholds of significance during unmitigated construction of the proposed warehouse project. It should be noted that unmitigated construction emissions incorporate the basic dust control measures required under SJVAPCD Rule 8201, which requires 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 4.3-4: CONSTRUCTION AIR POLLUTANT EMISSIONS

Emissions Source	Pollutant (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Site Preparation	0.10	0.99	0.93	0.013	0.26	0.15
Grading	0.28	2.66	2.66	0.0052	0.96	0.27
Building Construction (2024)	0.15	0.93	1.95	0.0025	0.30	0.09
Building Construction (2025)	0.24	1.66	2.98	0.0049	0.44	0.14

TABLE 4.3-4: CONSTRUCTION AIR POLLUTANT EMISSIONS

Emissions Source	Pollutant (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Paving	0.11	0.63	0.39	0.0027	0.11	0.04
Architectural Coating	1.26	0.01	0.03	0.0000	0.00	0.00
Off-Site Improvements	0.02	0.20	0.20	0.0005	0.064	0.012
Total Emissions (On and Off-Site)	2.16	7.08	8.77	0.017	2.06	0.70
SJVAPCD Annual Thresholds (tons/year)	10	10	100	27	15	15
Exceeds Annual Thresholds?	No	No	No	No	No	No

Notes:

Total emissions occur over 2 years such that partial year emissions are not representative of potential annual emissions should scheduling or phasing shift. The total emissions over 16 months would be conservative for any schedule.

CO = carbon monoxide

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

SO_x = sulfur oxides

Totals may not sum exactly due to rounding.

Source: FirstCarbon Solutions (FCS) 2023.

Operational Emissions

Emissions from the operation of the facility would be from 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 are zero since the facility would not utilize natural gas for water and space heating at the facility.

There are no sources of air pollutant related to the industrial operations inside of the warehouse since all of the material handling equipment is electric (e.g., battery electric forklifts and electric pallet jacks). Area sources refer to volatile organic compound emissions from use of consumer products by employee (cosmetics and personal care products) and also include emissions from cleaning products including detergents, cleaning compounds, polishes, floor finishes. Emissions from exhaust of any gasoline-fueled landscaping equipment also contribute to, and are included in, the area source emissions.

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. ARB regulations limit on-site idling to less than 5 minutes per occurrence. 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 queuing and idling. Consultants Kimley-Horn produced a Traffic Study for the proposed project that estimated the proposed project would generate 3,907 daily passenger vehicle trips and 145 daily truck trips (KHA 2024b). The Air Quality Analysis and CalEEMod estimates are conservatively based on CalEEMod defaults for VMT trip length for passenger vehicles and project-specific estimates for

trucks. **Table 4.3-5**, *Unmitigated Operational Pollutant Emissions (2026)* summarizes the proposed project’s emissions from these sources.

TABLE 4.3-5: UNMITIGATED OPERATIONAL POLLUTANT EMISSIONS (2026)

Emissions Source	Pollutant (tons/year)					
	ROG	NO _x	CO	SO _x	PM ₁₀	PM _{2.5}
Area (landscape equipment)	3.13	00.02	2.56	0.000	0.005	0.003
Building operations	0.00	0.00	0.00	0.000	0.000	0.000
Stationary Sources	0.00	0.00	0.00	0.000	0.000	0.000
Mobile – Trucks	0.08	7.82	0.95	0.07	2.14	0.67
Mobile – Passenger Vehicles	1.72	1.61	21.48	0.07	6.83	1.74
Operation Annual Emissions (tons/year)	4.93	9.45	25.0	0.14	8.97	2.41
SJVAPCD Annual Thresholds (tons/year)	10	10	100	27	15	15
Exceeds Annual Thresholds?	No	No	No	No	No	No

Notes:

CO = carbon monoxide

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

SO_x = sulfur oxides

Totals may not sum exactly due to rounding. Mobile Source Emissions from EMFAC2021 v.1.0.2 presented in this table do not account for reductions from recently promulgated rules such as the Advanced Clean Cars II, Advanced Clean Fleet Rule or the H&D IM Rule.

Source: FirstCarbon Solutions (FCS) 2023.

As shown in **Table 4.3-7**, operational emissions are below the SJVAPCD’s regional significance thresholds for all pollutants analyzed.

Localized Pollutant Analysis

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.

An analysis of average daily emissions during construction and operation was conducted to determine whether emissions would exceed the localized SJVAPCD 100 pounds per day screening threshold for any pollutant of concern. The on-site construction emissions were based on the average daily for on-site trucks and construction exhaust equipment based on the CalEEMod construction modeling (see Appendix B). This approach is recommended by SJVAPCD Guidance for evaluating projects where site-specific construction phasing is not yet available (SJVAPCD 2018b). The emissions were determined from the sum of all on-site emissions (exhaust from on-site trucks and construction equipment, architectural coating and paving emissions and fugitive dust from material handling and roadways) and dividing by the number of overall days of active construction (345 days).

Maximum daily on-site criteria pollutant emissions for operation were determined by conducting a project-specific analysis using EMFAC-PL for the first full year of operations 2026. This project-specific analysis considered emissions from passenger vehicles and trucks based on predicted daily vehicle from the traffic study. Emissions were calculated for summer and winter conditions and accounted for cold-starts from passenger vehicles in the parking lot for up to 9-hours as well as hot soak and diurnal losses from vehicles on-on-site. The analysis also included the Running Exhaust of Passenger Vehicles within ¼ mile of the site considering traffic distributions from the traffic study along Wible and Houghton Roads. Truck emissions include starting and idle emissions on-site (at various locations) and low-speed traveling on trucks within the boundaries of the site including the private entrance road. Car and truck emissions were included for travel extending off-site within 0.25-mile of the facility in accordance with SJVAPCD CEQA Guidance (SJVAPCD 2018b). The proposed project would not exceed daily emission thresholds during construction and operation for any pollutant of concern. Operational emissions include emissions generated on-site by area sources such as landscape maintenance and on-site travel from motor vehicles accessing the project site.

The results of the localized analysis are presented in **Table 4.3-6, Localized Daily Air Pollutant Emissions During Construction** and **Table 4.3-7, Maximum On-site Daily Air Pollutant Emissions During Operations**, for construction and operations, respectively. Details of the calculations are included in Appendix B.

TABLE 4.3-6: LOCALIZED DAILY AIR POLLUTANT EMISSIONS DURING CONSTRUCTION

Emissions Source	Construction Emissions (pounds) ¹				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Off-Road Equipment Exhaust	1,219	11,620	12323	504	464
Dust from Material Movement	0	0	0	968	431
On-site trucks	0.1	5.0	1.7	1,203.6	1,20.2
Worker, Vendor, Haul (local)	21.7	126.7	298.6	79.9	20.72
Architectural Coating	2522	0	0	0	0
Paving	150	0	0	0	0
Total Emissions (lbs)	3,913	11,752	12,623	2,756	1,036
Average Daily Emissions (lbs/day)	11	34	37	8	3
Screening threshold (lbs/day)	100	100	100	100	100

TABLE 4.3-6: LOCALIZED DAILY AIR POLLUTANT EMISSIONS DURING CONSTRUCTION

Emissions Source	Construction Emissions (pounds) ¹				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Exceed screening threshold?	No	No	No	No	No

Notes:
 Includes sources operating within ¼ mile of the site boundary.
 CO = carbon monoxide
 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
¹ PM₁₀ and PM_{2.5} emissions are from the mitigated output to reflect compliance with Regulation VIII—Fugitive PM₁₀ Prohibitions.
 Source: FirstCarbon Solutions (FCS) 2023.

TABLE 4.3-7: MAXIMUM ON-SITE DAILY AIR POLLUTANT EMISSIONS DURING OPERATIONS

Emissions Source	On-site Emissions (pounds per day)				
	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Summer					
Area (Landscaping)	19.85	0.24	28.45	0.05	0.04
Mobile (Passenger Vehicles + Trucks)	8.19	7.49	53.49	0.09	0.08
<i>Total On-Site/Localized (Summer)</i>	<i>28.04</i>	<i>7.73</i>	<i>81.94</i>	<i>0.14</i>	<i>0.12</i>
Winter					
Area (Landscaping)	15.18	0.00	0.00	0.00	0.00
Mobile (Passenger Vehicles + Trucks)	6.39	10.80	78.99	0.09	0.09
<i>Total On-Site/Localized (Winter)</i>	<i>21.57</i>	<i>10.80</i>	<i>78.99</i>	<i>0.09</i>	<i>0.09</i>
Maximum Daily Emissions from Either Scenario					
Maximum Daily Emissions	28.04	10.8	81.94	0.14	0.12
Screening threshold	100	100	100	100	100
Exceed screening threshold?	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.
 Highest of Winter and Summer Operational Emissions, based on 100 F Summer Days and 45 F Winter Days.
 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: FirstCarbon Solutions (FCS) 2023.

The proposed project would not exceed SJVAPCD screening thresholds for requiring additional ambient air quality modeling, the proposed project's localized criteria pollutant impacts from 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 SJVAPC District 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 and is, therefore, called 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 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 percent collected for the SJVAPCD. Expenditure of the mitigation funds is then done for certified air quality reduction projects through the SJVAPCD. 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/DMC programs, the District acknowledges that as ROG is a precursor to ozone, the 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 (2005a); this and other key SJVAPCD documents are included as Appendix B.2. As the actual amount of ROG reductions achieved from NO_x and PM₁₀ 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.

Mitigation Measures

Implement **Mitigation Measures MM 4.3-1** through **MM 4.3-5**.

Level of Significance

With implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5**, impacts would be less than significant.

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, child care centers, and athletic facilities.

The immediate project area has a few nearby residences. The nearest residence is approximately 400 feet to the west. In addition, the General Shafter Elementary School is located approximately 0.8 mile southeast of the project site at South H Street and Shafter Road, and the Kern High School District has identified a new school site located approximately 1 mile north of the project site at Wible Road and Engle Road and approved a new high school to be constructed at the intersection of Panama Lane and Cottonwood Road, approximately 3 miles northeast of the project site.

Toxic Air Contaminants

The Air Toxic “Hot Spots” Information and Assessment Act, also known as AB 2588, identifies toxic air contaminant hot spots where emissions from specific stationary sources may expose individuals to an elevated risk of adverse health effects, particularly cancer or reproductive harm. Many TACs are also classified as Hazardous Air Pollutants (HAPs). AB 2588 requires that a business or other establishment identified as a significant stationary source of toxic emissions provide the affected population with information about health risks posed by the emissions.

Projects are considered for potential health risks wherein a new or modified source of TACs is proposed for a location near an existing residential area or other sensitive receptor when evaluating potential impacts related to TACs. The primary TAC of concern for this project would be DPM emitted within the project site from the construction and operation phases of the proposed 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 proposed project’s cancer and non-cancer chronic health risks. The proposed 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. The cancer risk at the point of maximum impact (PMI), Maximally Exposed Individual Resident (MEIR), Maximally Exposed Individual Worker (MEIW), and Maximally Impacted Sensitive Receptor (MIR) are provided in **Table 4.3-8, Estimated Health Risk during Construction**. As illustrated therein, operation of the project would not result in increased cancer risk or hazard index in excess of SJVAPCD’s significance thresholds. Overall, impacts associated with the proposed project’s potential to expose sensitive receptors to substantial TACs due to the project-generated construction emissions would be less than significant.

TABLE 4.3-8: ESTIMATED HEALTH RISK DURING CONSTRUCTION

Risk	Value	SJVAPCD Threshold	Exceeds SJVAPCD Threshold (Y/N)?	Receptor Coordinates (UTM NAD 83 Zone 11)	
				Easting (meters)	Northing (meters)
Cancer PMI Risk (in a million)	17.9	20 in 1 million	N	314,994	3,900,713
Cancer MEIR Risk (in a million)	2.1	20 in 1 million	N	314,352.3	3,900,458
Cancer Sensitive Risk (in a million)	0.9	20 in 1 million	N	315,894	3,899,563
Cancer MEIW Risk (in a million)	0.2	20 in 1 million	N	314,565	3,901,240
Chronic PMI HI	0.015	1.0	N	314,994	3,900,713
Chronic MEIR HI	0.002	1.0	N	314,352.3	3,900,458
Chronic Sensitive HI	0.001	1.0	N	315,894	3,899,563
Chronic MEIW HI	0.004	1.0	N	314,565	3,901,240

Notes:

NAD = North American Datum

UTM = Universal Transverse Mercator

HI = Hazard Index

MEIR = Maximally Exposed Individual Resident

MEIW = Maximally Exposed Individual Worker

PMI = point of maximum impact

SJVAPCD = San Joaquin Valley Air Pollution Control District

Source: FirstCarbon Solutions (FCS) 2023.

Operational activities expected to expose sensitive receptors to air toxics would include diesel-fueled trucks used to conduct operation and maintenance activities. An HRA was performed for operational DPM emissions using the AERMOD dispersion model, along with the latest version of the ARB HARP program Air Dispersion and Risk assessment tool, to estimate the proposed project's cancer and non-cancer chronic health risks. The cancer risk at the PMI, MEIR, MEIW, and maximally exposed sensitive receptor are provided **Table 4.3-9, *Estimated Health Risk During Operation***. As illustrated therein, operation of the proposed project would not result in increased cancer risk or hazard index in excess of SJVAPCD's significance thresholds. Overall, impacts associated with the proposed project's potential to expose sensitive receptors to substantial TACs during operation of the proposed project would be less than significant.

TABLE 4.3-9: ESTIMATED HEALTH RISK DURING OPERATION

Risk	Value	SJVAPCD Threshold	Exceeds SJVAPCD Threshold (Y/N)?	Receptor Coordinates (UTM NAD 83 Zone 11)	
				Easting (meters)	Northing (meters)
Cancer PMI Risk (in a million)	0.67	20 in 1 million	N	316,094	3,901,262
Cancer MEIR Risk (in a million)	0.40	20 in 1 million	N	316,093	3,901,224
Cancer Sensitive Risk (in a million)	0.02	20 in 1 million	N	315894	3,899,563
Cancer MEIW Risk (in a million)	0.04	20 in 1 million	N	314,565	3,901,240
Chronic PMI HI	<0.001	1.0	N	316,094	3,901,262
Chronic MEIR HI	<0.001	1.0	N	316,093	3,901,224
Chronic Sensitive HI	<0.001	1.0	N	315894	3,899,563
Chronic MEIW HI	<0.001	1.0	N	314,565	3,901,240

Notes:

NAD = North American Datum

UTM = Universal Transverse Mercator

HI = Hazard Index

MEIR = Maximally Exposed Individual Resident

MEIW = Maximally Exposed Individual Worker

PMI = point of maximum impact

SJVAPCD = San Joaquin Valley Air Pollution Control District

Source: FirstCarbon Solutions (FCS) 2023.

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 proposed 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 and 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 proposed 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 amount 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 proposed 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, and therefore, it is assumed localized health effects associated with NO_x, PM₁₀, and PM_{2.5} emissions from project implementation could occur. The proposed project is the construction and operation of a new warehouse that would require dust-generating construction activities such as pile-driving, mowing, 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). 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} 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 Measure MM 4.3-1** through **MM 4.3-9**, exposure to dust during construction could still occur which could increase the health susceptibility and increase the severity of the disease. There is no vaccine to date for COVID-19. In addition to implementation of **Mitigation Measure MM 4.3-1** through **MM 4.3-9**, the proposed project would implement **Mitigation Measure MM 4.3-10**, which requires implementation of a COVID-19 Health and Safety Plan in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates.

Therefore, implementation of **Mitigation Measure MM 4.3-1** through **MM 4.3-10** would be required to reduce the proposed 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.

CO Hotspots

Regionally, project-related construction travel would add to regional trip generation and increase the VMT within the local airshed and the SJVAB. Locally, traffic during construction and operations of the proposed project would be added to the roadway system in the vicinity of the project site. Although the SJVAPCD is currently an attainment area for CO, there is a potential for the formation of microscale CO “hotspots” to occur immediately around points of congested traffic. Typically, high CO concentrations are associated with urban roadways or intersections operating at an unacceptable Level of Service (LOS). Therefore, the SJVAPCD has established that if neither of the following criteria are met at all intersections affected by the developmental project, the project would result in no potential to create a violation of the CO standard:

- A traffic study for the proposed project indicates that the LOS on one or more streets or at one or more intersections in the project vicinity would be reduced to LOS E or F; or
- A traffic study indicates that the proposed project would substantially worsen an already existing LOS F on one or more streets or at one or more intersections in the project vicinity.

If either of the above criteria can be associated with any intersection affected by the proposed project, the project proponent would need to conduct a CO analysis to determine a project’s significance.

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. Therefore, no further CO Hotspot analysis is required and no related adverse significant impacts would occur.

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 proposed 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 proposed 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 proposed project has the potential to generate fugitive dust and suspend Valley Fever spores with the dust that could then reach nearby sensitive receptors. It is possible that on-site workers could be exposed to Valley Fever as fugitive dust is generated during construction. However, as discussed in **Section 2.1.2**, due to its former agricultural/cultivated land use, the project site would have low probability of *C. immitis* (Valley Fever) growth on-site or exposure from disturbed soil.

During construction, Compliance with dust control regulations would further reduce the potential to expose sensitive receptors to Valley Fever. The proposed project would be required to comply with Rule 8021

Section 6.3, which requires applicants to develop, prepare, submit, obtain approval of, and implement a Dust Control Plan, which would reduce fugitive dust impacts to less than significant for all construction phases of the proposed project, which would also control the release of the *CI* fungus from construction activities. This requirement is included in **Mitigation Measure MM 4.3-2**; however, exposure to the *CI* fungus would be potentially significant and **Mitigation Measure MM 4.3-6** is provided to further reduce impacts associated with Valley Fever and to protect on-site construction workers and nearby receptors. In addition, **Mitigation Measure MM 4.3-7** would be required and includes payment of a one-time fee for public awareness programs related to Valley Fever.

During operations, the project site would be built up and would not provide a conducive environment for Valley Fever. Therefore, impacts associated with the proposed project's potential to expose sensitive receptors to Valley Fever are less than significant. No further analysis is needed.

Therefore, the exposure to Valley Fever would be minimized and impacts would be reduced to less than significant levels with implementation of the mitigation measures identified above.

Asbestos

Naturally occurring asbestos can be released from serpentinite and ultramafic rocks when the rock is broken or crushed. As discussed in more detail in **Section 2.1.2**, exposure to naturally occurring asbestos can occur during soil-disturbing activities in areas with deposits present. 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.

Review of the Department of Conservation maps indicates that the project site and San Joaquin County do not have reported historic asbestos mines, historic asbestos prospects, and other natural occurrences of asbestos (DOC 2000). Therefore, impacts associated with exposure of construction workers and nearby sensitive receptors to asbestos would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-5** and the following mitigation measures would be required.

- 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:
- a. Equipment, vehicles, and other items shall be thoroughly cleaned of dust before they are moved off-site to other work locations.
 - b. Wherever possible, grading and trenching work shall be phased so that earth-moving equipment is working well ahead or downwind of workers on the ground.
 - c. The area immediately behind grading or trenching equipment shall be sprayed with water before ground workers move into the area.

- d. In the event that a water truck runs out of water before dust is sufficiently dampened, ground workers exposed to dust shall leave the area until a truck can resume water spraying.
- e. To the greatest extent feasible, heavy-duty earthmoving 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 residents within 3 miles of the project site. The handout shall, at a minimum, provide information regarding symptoms, health effects, preventive 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 3 miles 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 should be prepared in accordance with the Kern County Public Health Services Department and Kern County Health Officer mandates. A copy of the COVID-19 Health and Safety Plan shall be submitted to the Kern County Planning Department for review.

MM 4.3-9 Prior to commencement of any onsite construction activities (i.e., fence construction, mobilization of construction equipment, initial grading), the project proponent shall provide written notice to the public through mailing a notice to all parcels within 1,000 feet of the project site, no sooner than 15 days prior to construction activities. The notices shall include the construction schedule, a telephone number and email address where complaints and questions can be registered. Additionally, a minimum of one sign, legible at a distance of 50 feet, shall also be posted at the construction sites or adjacent to the nearest public access to the main construction entrances throughout construction activities which include the construction schedule (updated as needed) and a telephone number where complaints

can be registered. Documentation that the 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 proponent shall establish a “construction coordinator” and submit written documentation which includes their phone number, email address and mailing address. The construction coordinator shall be responsible for the following:

- 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.

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 site is located in a sparsely developed area. However, during construction activities short-term, temporary odors from vehicle exhausts and other construction equipment would occur. These odors, however, are not expected to affect a substantial number of people because the site is located in sparsely populated areas and any odors or emissions would be temporary and would disperse rapidly.

The construction of the facility will include an on-site wastewater treatment plant to meet the needs of the facility. While this has the potential to generate objectionable odors, it will be equipped with an odor control facility to ensure that “Nuisance odors shall not be perceivable beyond the property line of the wastewater treatment facility.”

Neither construction nor long-term operations of the proposed project are anticipated to generate any significant objectionable odors that affect a substantial number of people. Considering the low intensity of potential odor emissions, the proposed project’s operational activities would not expose receptors to objectionable odor emissions. Therefore, impacts related to other emissions adversely affecting a substantial number of people would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

The Kern County Planning Department's *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* three steps for estimating the potential significance of cumulative impacts: (1) evaluate localized impacts (Guideline Instruction 16a); (2) evaluate consistency with existing air quality plans (Guideline Instruction 16b); and (3) summarize ARB air basin emissions (Guideline Instruction 16c).

The geographic scope for cumulative air quality impacts is the San regional impacts and a 1-mile radius for impacts on sensitive receptors. These geographic scopes of analysis are appropriate for determining air quality impacts because of the Statewide, regional, and localized nature of air quality impacts, which could occur cumulatively with the proposed project. As provided in **Chapter 3, Project Description**, two cumulative projects are located within a 1-mile radius of the project site.

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. As previously discussed, project construction and operational emissions of these pollutants are not anticipated to violate or lead to additional violations of NAAQS and CAAQS. Consistent with the SJVAPCD's *Guide for Assessing and Mitigating Air Quality Impacts*, the proposed 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 applicant 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 proposed 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, 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 Developer Mitigation Contract, 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

One notable cumulative project (Project 12) is located within 1-mile radius of the project site, as listed in **Table 3-5, Cumulative Projects List**. Significant cumulative impacts with Project 12 could potentially occur during project construction and operation. However, the majority of the project emissions from both proposed projects would be from on-road mobile sources. Both projects are located west of the SR-99 with all trucks from the proposed project utilizing the SR-99. Therefore, the potential for impacts would occur only for traffic at the SR-99, Houghton Interchange. This was analyzed in the traffic study, which is summarized in **Section 4-17, Transportation and Traffic**, of this Draft EIR.

Finally, regarding cumulative impacts of Project 14 as a new sensitive receptor, TAC emissions from both the construction and operational HRA were determined to have less than less than significant impacts at all off-site receptors, including sensitive receptors.

Kern County has determined that the previously listed project-level thresholds are defined, for purposes of determining cumulative effects, as the baseline for “considerable.” In other words, if a project's emissions do not exceed the project-level thresholds, the proposed project would not be considered cumulatively “considerable” and a cumulative impact assessment would not be required. As noted above, the proposed project with mitigation would not exceed any of the significance thresholds during construction or operations and would therefore not have emissions that are “considerable” with respect to cumulative construction or operational impacts.

Consistency With Existing Air Quality Plans

Consistency with the AQP, even at the cumulative level, is based on a comparison of project-generated growth in employment, population, and VMT within the region. As previously NO_x 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. As the proposed project, with implementation of **Mitigation Measures MM 4.3-1 through MM 4.3-10** would not result in significant temporary levels of NO_x, CO, and PM₁₀ emissions during construction, the proposed project would not 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 Developer Mitigation Contract, cumulative impacts for criteria pollutants are considered significant and unavoidable.

With regard to operation, the proposed 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 proposed project is not expected to exceed thresholds for any nonattainment pollutant. Therefore, the proposed 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 be less than significant.

California Air Resources Board Air Basin Emissions

To demonstrate the contribution of the proposed project's operational emissions relative to the cumulative air quality conditions in Kern County and the SJVAB, the proposed project's specific emissions are compared to the emission projection data for Kern County and the SJVAB. As illustrated in **Table 4.3-10, Emissions Projections for the Proposed Project, Kern County, and San Joaquin Valley Air Basin**, the increase emissions contributed by the proposed project in relation to the total air basin would be less than 1 percent for each pollutant analyzed. This analysis is shown for demonstration and is included per Kern County's *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports* (Kern County 2006).

TABLE 4.3-10: EMISSIONS PROJECTIONS FOR THE PROPOSED PROJECT, KERN COUNTY, AND SAN JOAQUIN VALLEY AIR BASIN

	Pollutant (tons/year)		
	ROG	NO _x	PM ₁₀
Kern County	61,508	16,017	14,493
San Joaquin Valley Air Basin	370,810	75,358	115,362
Project	4.97	9.63	10.13
Project Percentage of Kern County	0.0081%	0.0601%	0.0699%
Project Percentage of San Joaquin Valley Air Basin	0.0013%	0.0128%	0.0088%

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).

Source: FirstCarbon Solutions (FCS) 2023

Cumulative Impacts Summary

The discussion provided above evaluates localized impacts, including projects located within a 1- and 6-mile radius; evaluates consistency with existing air quality plans; and compares project emissions to ARB emission projections for the region, consistent with the criterion provided in Kern County Planning Department's *Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports*.

Emissions for construction related to ambient air quality impacts are summarized in **Table 4.3-6, Construction Air Pollutant Emissions**, while operational emissions related to ambient air quality impacts are summarized in **Table 4.3-7, Unmitigated Operational Pollutant Emissions (2026)**. As shown therein, emissions for NO_x, CO, and PM₁₀ during construction and operations of the proposed project are below the SJVAPCD's significance thresholds. As such, it was determined that the proposed project would not obstruct SJVAPCD's ability to achieve further progress toward attainment of the State standards. However, potential cumulative impacts to air quality could occur from construction and operation of the proposed 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, cumulative impacts for criteria pollutants are considered significant and unavoidable.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-10** would be required.

Level of Significance After Mitigation

Cumulative impacts would be significant and unavoidable during construction and operations after implementation of **Mitigation Measures MM 4.3-1** through **MM 4.3-10**.

Section 4.4
Biological Resources

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4.4.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting for biological resources that are either present or have the potential to be present on the project site. This section includes the physical and regulatory setting for the proposed project; an evaluation of 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; and an analysis of potential impacts and project-specific mitigation. The analysis presented in this section is based, in part, on a review of relevant literature, field reconnaissance surveys, and focused biological surveys.

The literature review 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 (CNDDDB) (CDFW 2023), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants (CNPS 2021) and the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (USFWS 2021). Other sources of information reviewed include the most recent and available aerial photographs (Google Earth 2022), United States Geological Survey (USGS) 7.5-minute quadrangle topographic maps, soil survey maps (Natural Resource Conservation Science [NRCS] 2021), the United States Environmental Protection Agency (EPA) Watershed Assessment, Tracking and Environmental Results System (WATERS) (EPA 2021), and the proposed project site plans.

The analysis presented in this section is also based on the *Biological Resources Assessment Westside Industrial Project* prepared for the proposed project (FirstCarbon Solutions [FCS] 2023b). The Biological Resources Assessment (BRA) is provided in Appendix C of this Draft EIR. The BRA includes a discussion of a general biological resource assessment for the project site based upon a desktop review of existing databases and literature, and a reconnaissance-level visit to the project site on April 26, 2023. The survey area, full methodologies, site conditions, and results of the field survey are detailed in Appendix C of this Draft EIR.

4.4.2 Environmental Setting

Regional Setting

The project site is located in the southern San Joaquin Valley in unincorporated Kern County, California. This site is part of a larger 642.68-acre parcel known on Assessor's Parcel Number (APN) 184-391-08. The site is bounded by Wible Road (west), Houghton Road (north), and agricultural land (south and east). The project site is located on the Conner, California United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map, Township 31 South, Range 27 East, Section 13.

The project site is surrounded primarily by agricultural lands and by limited commercial developments and associated infrastructure. These include Martin Feed, warehouses, Houghton Road, and an almond orchard to the north; carrot fields, Kern Island Canal, and State Route (SR) 99 to the east; cultivated agricultural rows to the south; and Wible Road and an almond orchard to the west. The project site is currently used for agricultural production.

Climate

The climate in the southern San Joaquin Valley region consists of hot summer temperatures (average daily maximum near or above 90°F [degrees Fahrenheit]) and low annual precipitation (approximately 12 inches). Daily temperature swings of 30°F can occur, with lows in the winter near freezing. Precipitation generally occurs within the winter and spring with very little occurring during the summer as a result of summer thunderstorms. Winds are generally mild to moderate, from 0 to 10 miles per hour (mph), with gusts upward of 40 mph on rare occasions.

The elevation of the project site is approximately 330 feet above mean sea level, with a gradual slope from north to south. The project site is situated in a region that is characterized by an uneven plain consisting of extensive alluvial fans, debris flows, and over-bank deposits. The project site is located approximately 0.7 mile east of the Kern Island Canal.

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 (CA-FP) 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

The San Joaquin Valley supports a variety of reptiles, birds, and mammals. Reptile species commonly occurring in the San Joaquin Valley portion of Kern County include western side-blotched lizard (*Uta stansburiana elegans*), California whiptail (*Aspidoscelis tigris munda*), and Pacific gopher snake (*Pituophis catenifer catenifer*). Bird species common to the region include common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), western meadowlark (*Sturnella neglecta*), house finch (*Haemorhous mexicanus*), and red-tailed hawk (*Buteo jamaicensis*). Mammal species typical of the area include California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), black-tailed jackrabbit (*Lepus californicus*) and Yuma myotis (*Myotis yumanensis*).

Sensitive Natural Communities

Sensitive natural communities are designated as such by the CDFW and are generally considered to have important functions or values for wildlife or are recognized as declining in extent and/or distribution. These

communities are considered threatened enough to warrant some level of protection. The CDFW tracks communities it believes to be of conservation concern through the CNDDDB, and plant alliances or associations with a State rank of S1 through S3 are considered sensitive communities. There are no CDFW-designated sensitive natural communities on-site.

Surface Hydrology and Jurisdictional Waters

Within the arid and semi-arid western United States, limited precipitation restricts wetland and riparian resources to 1 to 5 percent of the land surface, a relatively low proportion compared to other systems globally (United States Army Corps of Engineers [USACE] 2008).

The project site is located within the San Joaquin Valley which consists of approximately 2,600 square miles of alluvial valley. The project site is in the Middle Kern-Upper Tehachapi-Grapevine Subbasin watershed. This subbasin is bound by the Tehachapi Mountains to the east and south and the San Emigdio Mountains to the west. The southern portion of the Central Valley, known as the San Joaquin Valley, is drained by the San Joaquin River, which is a known water of the United States and State and is also subject to the jurisdiction of the CDFW. This portion of the valley drains to the former Tulare Lake, now known as the Tulare Lake Hydrologic Region. Tulare Lake was the largest of several similar lakes (e.g., Kern and Buena Vista lakes) in the lower basin. The lake historically received water from the Kern, Tule, and Kaweah Rivers, as well as southern tributaries of the Kings River. Diversions for agriculture and municipal purposes has resulted in drying of the lake except for residual wetlands and occasional floods. These lakes have now been dry for many decades and the lake bottoms are now heavily farmed. Aquatic resources in the region are typically lack waters of the United States due to being non-navigable, isolated water bodies. However, they may contain a combination of waters of the State under CDFW jurisdiction.

Wildlife Movement Corridors

Wildlife movement corridors link areas of suitable wildlife habitat that are otherwise separated by natural and anthropogenic dispersal barriers, including rugged terrain, changes in vegetation, human developments, or human land uses and disturbances. Urbanization and the resulting fragmentation of open space areas create isolated “islands” of wildlife habitat, forming separated populations. Corridors act as an effective link between habitats and populations.

Natural wildlife movement corridors within the southern San Joaquin Valley have largely been eliminated or highly degraded through agricultural conversion of the region. Several canals and agricultural aqueducts throughout the region flow along former natural drainages in the valley floor that originated in the Tehachapi Mountains. These former riparian features historically served as corridors for wildlife moving between habitats in the valley and the Tehachapi Mountains foothills. In their modern condition, the canal/aqueduct features serve to restrict wildlife movement across them, though they may facilitate movements of terrestrial wildlife along them. The California Aqueduct, I-5, and SR-99 further restrict wildlife movements in the southern San Joaquin Valley. While migratory birds currently fly over the San Joaquin Valley and historically utilized the former lakes and riparian zones of the valley floor, there are currently no significant stopover sites in the vicinity of the project site.

Local Setting

The project site is located approximately 1 mile west of SR-99 and consists of approximately 99.28 acres that is entirely privately owned, with 93.74 acres designated for project development and 5.54 acres of road right-of-way dedication and improvements. The project site is relatively flat. Elevation on the project site is approximately 330 feet at the above mean sea level (AMSL) with a gradually decreasing topographic gradient to the south. The project site is surrounded by agricultural, barren, commercial, and orchard land. Existing development in the project vicinity includes row crops as well as active almond farming. At the time of the April 26, 2023, survey, the surrounding agricultural lands consisted of almond orchards located to the west and north of the site, fallow fields to the south, and irrigated crop rows to the east.

Vegetation Communities

Ruderal/Bare

The project site is largely agricultural lands that have been subjected to agricultural practices for decades. As such, portions of the project site had been recently disked or subjected to repeated disturbances that resulted in cleared, bare ground that is being invaded by native and non-native ruderal species. These ruderal/bare areas on and adjacent to the project site were observed as fallow land in areas that had been in agricultural production and disturbed areas associated with roads, described below. Additional bare/ruderal areas were observed in the 500-foot buffer of the project site southwest and north of the site (**Figure 4.4-1: Vegetation Community/Land Cover Map**). The bare/ruderal habitat types observed on and adjacent to the project site are described further below.

Fallow Fields

Fallow land occupies most of the project site, particularly within the central and western portions of the project. Historic aerial photography indicates the project site has gone through periods of fallowness as part of its agricultural usage, usually alternating between fallow and cultivated every 1–2 years. Previous disturbance events included vegetation control and other management activities associated with agricultural practices that have altered the natural state of the project site. No vegetation was seen within the fallowed land during the field survey as disking occurred on April 26, 2023, which eliminated any vegetation within this portion of the project site. Fallowed land was also identified in the 500-foot buffer of the project site south of the site.

Dirt Access Roads

Dirt access roads are located near the boundary of the southern portion of the project site and separating the fallow land from current agricultural usage within the eastern portion of the site. Small areas of non-native grasses and forbs were observed on the edges of the roads. Species observed include the following: Buck's-horn plantain (*Plantago coronopus*), Canada horseweed (*Erigeron canadensis*), beets (*Beta vulgaris*), and puncture vine (*Tribulus terrestris*). Additional dirt roads are located in the 500-foot buffer of the project site south and southeast of the site.

Bare Areas

There are bare areas within the 500-foot buffer of the project site to the north and southwest of the site that are adjacent to and associated with developed areas. These areas support sparse ruderal vegetation, such as Canada horseweed and puncture vine.

Irrigated Crops

Carrot Fields

The eastern portion of the project site and lands to the east of the site and within the 500-foot buffer consist of irrigated croplands. Carrot (*Daucus carota*) fields were being cultivated and irrigated at the time of the field survey.

Orchards

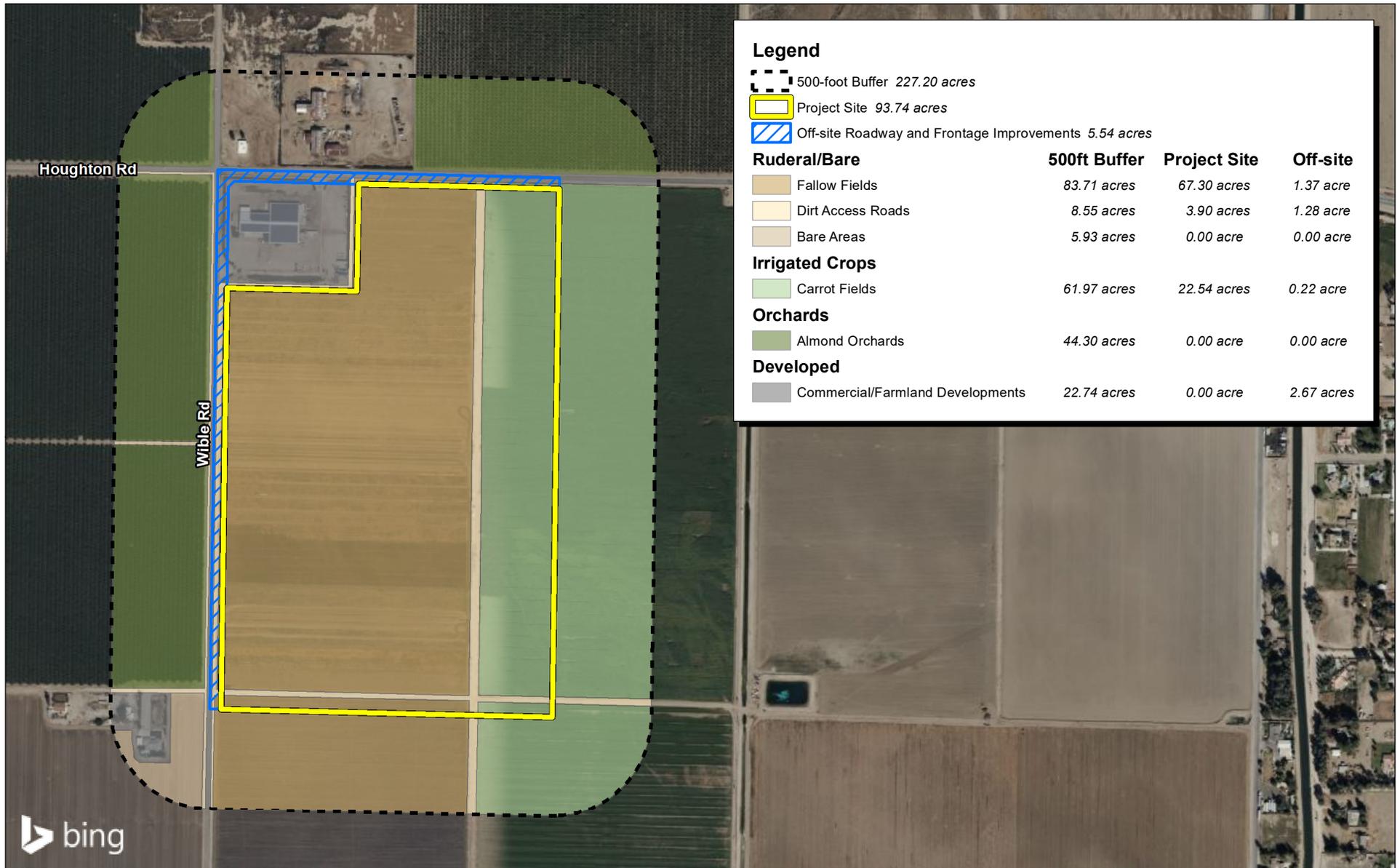
Almond Orchards

Much of the 500-foot buffer around the project site consists of almond (*Prunus dulcis*) orchards to the west, northwest, and northeast of the site. The trees are arranged in rows and the orchards are actively managed, with sparse herbaceous understory plant cover that consists of sparse ruderal vegetation.

Developed

Developed land includes areas that have been constructed upon or physically altered to an extent that native vegetation is no longer supported and retains no soil substrate. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident because a large quantity of debris or other materials that have been placed upon it may also be considered urban/developed. Developed areas are typically unvegetated or landscaped with a variety of ornamental (usually non-native) plants. Developed areas are located north and southwest of the project site in the 500-foot buffer. These developed areas consist of a commercial property and facilities associated with farming operations.

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Source: Bing Aerial Imagery. Kimley-Horn, 04/2023



Figure 4.4-1
Vegetation Community/Land Cover Map

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Wildlife Species

Wildlife species observed or detected on the project site include one invertebrate, a ladybug species (*Coccinellidae* sp.) and several avian species, including common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), northern mockingbird (*Mimus polyglottos*), and killdeer (*Charadrius vociferus*).

Special-status Species

Special-status species are 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 local agencies as being under threat from anthropogenic pressures as well as natural causes. Some of these species receive specific protection that is defined by the federal or State Endangered Species Acts. Other species 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/or special districts to meet local conservation objectives. Special-status species include the following:

- Species listed or proposed for listing as Threatened or Endangered, or are candidates for possible future listing as threatened or endangered, under the Federal Endangered Species Act or the California Endangered Species Act (CESA).
- Species covered under the Metropolitan Bakersfield Habitat Conservation Plan (MBHCP).
- Species that meet the definitions of rare or endangered under California Environmental Quality Act (CEQA) Guidelines Section 15380.
- All of the plants constituting California Rare Plant Rank (CRPR) 1B and Rank 2B meet the definitions of Section 901, Chapter 10 (Native Plant Protection Act [NPPA]) or CESA Sections 2062 and 2067 of the Fish and Game Code, and are eligible for State listing.
- Wildlife designated by the CDFW as “Species of Special Concern” or “special animals.”
- Wildlife designated as “Fully Protected” in California (Fish and Game Code [FGC] §§ 3511, 4700, and 5050).
- Wildlife species protected as “fur-bearing mammals” (FGC 4000 *et seq.*).
- Avian species protected by the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code (FGC §§ 3500–3516).

It should be noted that most avian species are afforded certain protections by the MBTA and California Fish and Game Code (FGC §§ 3500–3516). However, many of these species, including some raptors, are common and are not considered special-status on the basis of other regulations.

Table 4.4-1: *Special-status Plant Species with the Potential to Occur on the Project Site*, and **Table 4.4-2:** *Special-status Wildlife Species with the Potential to Occur on the Project Site*, summarize the special-status plant and wildlife species, respectively, that were evaluated for their potential to occur within the project site. Species with no potential to occur on the project site were excluded from further analysis. The “Potential to Occur” categories indicated in **Table 4.4-1** and **Table 4.4-2** are defined as follows:

- *None*: The project site and/or immediate area do not support suitable habitat to support occurrence of a particular species, or the project site is outside of the known range of the species, and therefore the proposed project is unlikely to impact this species.
- *Low*: The project site and/or immediate area only provide limited, marginal, or degraded habitat for the species.
- *Moderate*: The project site and/or immediate area provide potentially suitable habitat for the species, and proposed development may impact the species.
- *High*: The project site and/or immediate area provide suitable habitat conditions for the species and/or known populations occur in the immediate area.
- *Present*: Species observed on the site during focused surveys or other site visits.

TABLE 4.4-1: SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	CRPR ^c	Habitat Requirements	Potential to Occur
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's milk-vetch	—	—	1B.1	Occurs in meadows and seeps, playas and lake margins. Often grows on sites with alkaline soils. Elevation: 75–350 m. Blooming period: May–October	None : Lack of suitable habitat and high level of disturbance at site preclude presence.
<i>Atriplex cordulata</i> var. <i>cordulata</i>	heartscale	—	—	1B.2	Chenopod scrub, valley and foothill grassland, meadows and seeps in the Central Valley. Specific habitat requirements include alkaline flats and scalds with sandy soils. Elevation: 3–275 m. Blooming period: April–October	None : Lack of suitable habitat and high level of disturbance at site preclude presence.
<i>Atriplex coronata</i> var. <i>vallicola</i>	Lost Hills crownscale	—	—	1B.2	Chenopod scrub, valley and foothill grassland, vernal pools. Often grows on powdery, alkaline soils that are vernal moist with <i>Frankenia</i> , <i>Atriplex</i> spp. and <i>Distichlis</i> . Elevation: 45–885 m. Blooming period: April–September	None . The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.
<i>Atriplex tularensis</i>	Bakersfield smallscale	MBHCP	SE	1A	Historically occurred in valley sink scrub (chenopod scrub) or alkali seeps with saltgrass (<i>Distichlis</i>	None . The project site does not contain suitable vegetation communities to support this species. Current

TABLE 4.4-1: SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	CRPR ^c	Habitat Requirements	Potential to Occur
					<i>spicata</i> . Elevation: 90–110 m. Blooming period: June–October	use of the site for agriculture reduces the likelihood of this species occurring. Species is believed to be locally extirpated.
<i>Calochortus striatus</i>	alkali mariposa-lily	—	—	1B.2	Perennial bulbiferous herb found in chaparral, chenopod scrub, Mojavean desert scrub, seeps, alkaline meadows and ephemeral washes. Elevation: 70–1,600 meters. Blooming period: April–June	None. The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.
<i>Caulanthus californicus</i>	California jewelflower	MBHCP; E	E	1B.1	Shadscale scrub, valley grassland, pinyon-juniper woodland, usually in sub-alkaline soils. Elevation: 61–1000 m. Blooming period: February–May	None: Lack of suitable habitat and high level of disturbance at site preclude presence.
<i>Chloropyron molle ssp. hispidum</i>	hispid salty bird's-beak	—	—	1B.1	Meadows and seeps, playas, valley and foothill grassland. Often grows on damp alkaline soils, especially in alkaline meadows and alkali sinks with <i>Distichlis</i> . Elevation: 5–155 m. Blooming period: June–September	None. The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.
<i>Delphinium recurvatum</i>	recurved larkspur	MBHCP	—	1B.2	Chenopod scrub, valley and foothill grassland, cismontane woodland. Often grows on alkaline soils in valley saltbush or valley chenopod scrub. Elevation: 3–790 m. Blooming period: March–June	None. The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.

TABLE 4.4-1: SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	CRPR ^c	Habitat Requirements	Potential to Occur
<i>Eremalche parryi</i> ssp. <i>kernensis</i>	Kern mallow	FE	—	1B.2	Usually occurs within valley saltbush scrub (chenopod scrub), often at edge of balds. May also occur in valley and foothill grassland, pinyon, and juniper woodlands. Often grows on dry, open areas with sandy to clay soils. Elevation: 60–1295 m. Blooming period: January–May	None. The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.
<i>Imperata brevifolia</i>	California satintail	—	—	2B.1	Perennial rhizomatous herb found in mesic soils in chaparral, coastal scrub, Mojavean desert scrub, meadows and seeps (often alkali), and riparian scrub. Elevation: 0–1,215 m Bloom period: September–May	None. The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.
<i>Layia leucopappa</i>	Comanche Point layia	—	—	1B.1	Chenopod scrub, valley and foothill grassland. Often grows on dry hills where white-gray clay soils are present, often with weedy grasses. Does not reliably appear every year. Elevation: 100–315 m. Blooming period: (February) March–April	None. The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.
<i>Monolopia congdonii</i>	San Joaquin woollythreads	MBHCP	—	1B.2	Chenopod scrub and valley and foothill grassland, usually in sandy soils. Elevation: 100–315 m. Blooming period: February–May	None. The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.

TABLE 4.4-1: SPECIAL-STATUS PLANT SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	CRPR ^c	Habitat Requirements	Potential to Occur
<i>Opuntia basilaris</i> var. <i>treleasei</i>	Bakersfield cactus	FE; MBHCP	SE	1B.1	Occurs in chenopod scrub, valley and foothill grassland, cismontane woodlands. Often grows on bluffs, low hills, and flats on substrates of coarse or cobbly well-drained granitic sand. Elevation: 85–550 m. Blooming period: April–May	None. The project site does not contain suitable vegetation communities to support this species. Previous use of the site for agriculture reduces the likelihood of this species occurring.
<i>Puccinellia simplex</i>	California alkali grass	—	—	1B.2	Meadows and seeps, chenopod scrub, valley and foothill grasslands, vernal pools. Prefers alkaline, vernal mesic conditions. Often found in sinks, flats, and lake margins. Elevation: 1–915 m. Blooming period: March–May	None: The project site does not support suitable mesic soil habitat for this species. There are no records within 10 miles of the project site, and the project may be outside of the known range of the species.

Code Designations		
^a Federal Status: 2022 USFWS Listing	^b State Status: 2022 CDFW Listing	^c CNPS: 2022 CNPS Listing
FE = Listed as Endangered under the Endangered Species Act. FT = Listed as Threatened under the Endangered Species Act. FC = Candidate for listing (Threatened or Endangered) under the Endangered Species Act. FD = Delisted in accordance with the Endangered Species Act. MBHCP = Covered under the MBHCP — = Not federally listed	SE = Listed as Endangered under the CESA. ST = Listed as Threatened under the CESA. CR = Listed as Rare in California. — = Not State listed	Rank 1A = Plants species that presumed extinct in California. Rank 1B = Plant species that are rare, threatened, or endangered in California and elsewhere. Rank 2 = Plant species that are rare, threatened, or endangered in California, but more common elsewhere. Rank 3 = Plants about which we need more information—A Review List Rank 4 = Plants of limited distribution—A Watch List Blooming period: Months in parentheses are uncommon.

SOURCE: FirstCarbon Solutions (FCS) 2023.

Special-status Plants

Table 4.4-1, *Special-status Plant Species with the Potential to Occur on the Project Site*, lists 14 special-status plant species and CNPS sensitive species that have been recorded within 10 miles of the project site or that are within the MBHCP plan area (**Table 4.4-2**: *Special-status Wildlife Species with the Potential to Occur on the Project Site*). These species include Horn's milk-vetch (*Astragalus hornii* var. *hornii*), heartscale (*Atriplex cordulata* var. *cordulata*), Lost Hills crownscale (*Atriplex coronata* var. *vallicola*), Bakersfield smallscale (*Atriplex tularensis*), California jewelflower (*Caulanthus californicus*), hispid salty bird's-beak (*Chloropyron molle* ssp. *hispidum*), recurved larkspur (*Delphinium recurvatum*), Kern mallow (*Eremalche parryi* ssp. *kernensis*), Comanche Point layia (*Layia leucopappa*), San Joaquin woollythreads (*Monolopia congdonii*), Bakersfield cactus (*Opuntia basilaris* var. *treleasei*), alkali mariposa-lily (*Calochortus striatus*), California satintail (*Imperata brevifolia*), and California alkali grass (*Puccinellia simplex*).

The table also includes the species' status, required habitat, and potential to occur within the project site. Special-status plant species that were determined to have no potential to occur on-site are included in the table, along with the justification for their exclusion from further discussion.

Based upon the literature review, conditions on the project site, and professional experience, no special-status plant species are expected to occur on the project site due to the absence of suitable habitat, including naturally occurring vegetation communities such as chenopod scrub, valley and foothill grasslands or pinyon and juniper woodlands. The project site is currently utilized for agriculture. The extent and frequency of ground disturbance from tilling, herbicide application, and competition from non-native species do not promote conditions for the persistence or establishment of rare plants, which are typically eliminated under such intense disturbances. Moreover, the project site lacks microhabitats such as riparian habitats, vernal pools, seasonal marshes, or alkaline soils that are necessary to support many of the rare plants recorded in the database searches.

TABLE 4.4-2: SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	Habitat Requirements	Potential to Occur
Amphibians					
<i>Spea hammondi</i>	western spadefoot toad	—	SSC	Occurs primarily in grassland habitats but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg laying.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There is one historical record between 5 and 10 miles from the project site and one recent record between 5 and 10 miles from the project site.
Reptiles					
<i>Anniella grinnelli</i>	Bakersfield legless lizard	—	SSC	Occurs in the southern San Joaquin Valley. This species is only known to occur in two disjunct areas: the east side of the Carrizo Plain and portions of the city limits of Bakersfield. Microhabitat of this species is poorly known. Other legless lizard species occur in sparsely vegetated areas with moist, loose soil. Often found underneath leaf litter, rocks, and logs.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There are three historical records between 5 and 10 miles from the project site and two recent records between 5 and 10 miles from the project site.
<i>Anniella</i> spp.	California legless lizard	—	SSC	Occurs in moist, loose soil in a variety of coastal and interior habitats, including sandy washes and alluvial fans. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There is one historical record within 5 miles of the project site.

TABLE 4.4-2: SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status^a	State Status^b	Habitat Requirements	Potential to Occur
<i>Arizona elegans occidentalis</i>	California glossy snake	—	SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There are four historical records within 5 miles of the project site and three historical records between 5 and 10 miles from the project site.
<i>Emys marmorata</i>	western pond turtle	—	SSC	Occurs in ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below the 6,000 foot elevation. Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg laying.	None. The project site does not contain suitable habitat that would support occurrence of this species. There is one record of this species between 5 and 10 miles from the project site.
<i>Gambelia sila</i>	blunt-nosed leopard lizard	FE; MBHCP	SE FP	Occurs in sparsely vegetated alkali and desert scrub habitats, in areas of low topographic relief. Seeks cover in mammal burrows, under shrubs or structures such as fence posts.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There are two historical records of this species between 5 and 10 miles from the project site.
<i>Masticophis flagellum ruddocki</i>	San Joaquin coachwhip	—	SSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There is one historical record between 5 and 10 miles from the project site and two recent records between 5 and 10 miles from the project site.
<i>Phrynosoma blainvillii</i>	coast horned lizard	—	SSC	Inhabits open areas of sandy soil and low vegetation in valleys, foothills and semi-arid mountains. Found in grasslands, coniferous forests, woodlands, and chaparral, with open areas and patches of loose soil. Often found in lowlands along sandy washes with scattered shrubs and along dirt roads. Often found near ant hills feeding on ants.	None. The site does not contain suitable soils or vegetation communities to support this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There are two recent records of this species between 5 and 10 miles from the project site.

TABLE 4.4-2: SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	Habitat Requirements	Potential to Occur
Birds					
<i>Agelaius tricolor</i>	tricolored blackbird	MTBA	ST SSC FGC	Forages in open habitats such as farm fields, pastures, cattle pens, large lawns. Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California. Breeds in large freshwater marshes, dense stands of hydrophytic vegetation (cattails, bulrushes, etc.)	None. The project site does not contain suitable freshwater marsh habitat to support this species. Suitable foraging habitat is currently not present on-site, however the project site may provide suitable foraging habitat when fallow. Suitable foraging habitat is present on adjacent parcels. Nearest occurrence recorded in BIOS is located approximately 4 miles southeast of the project site.
<i>Ardea alba</i>	Great egret (nesting colony)	MBTA	SSC FGC	Colonial nester in trees or shrubs near water, sometimes in thickets some distance from water, sometimes low in marsh.	None. The project site does not contain suitable that would support breeding occurrence of this species. There is one historical record of this species within 5 mi west and 1.6 miles of the project site.
<i>Athene cunicularia</i>	burrowing owl	MTBA	SSC FGC	Found in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. A subterranean nester, dependent upon burrowing mammals, most notably the California ground squirrel.	Moderate. The project site may, under certain circumstances, contain suitable breeding and foraging habitat such as fallow fields and mammal (California ground squirrel) burrows. Intensive agricultural practices limit their occurrence. There are four recent records within 5 miles of the project site, two historical records of the species between 5 and 10 miles from the project site, and 17 recent records of the species between 5 and 10 miles from the project site..
<i>Buteo swainsoni</i>	Swainson's hawk	MTBA	ST SSC FGC	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	Moderate. The project site supports suitable foraging habitat but does not contain suitable breeding habitat. There are three recent records of this species within 5 miles of the project site, one historical record of the species between 5 and 10 miles from the project site, and three recent records of the species between 5 and 10 miles from the project site..
<i>Egretta thula</i>	snowy egret (nesting colony)	MBTA	FGC	Nests in colonies in trees, shrubs, mangroves, sometimes on or near the ground in marshes.	None. The project site does not contain suitable habitat that would support breeding occurrence of this species. There is one historical record of this species within 5 miles of the project site.

TABLE 4.4-2: SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	Habitat Requirements	Potential to Occur
Mammals					
<i>Ammospermophilus nelsoni</i>	Nelson's antelope squirrel	MBHCP	ST SSC	Occurs in Western San Joaquin Valley in elevations of 200-1200 ft. on dry, sparsely vegetated loam soils. Digs burrows or uses k-rat burrows. Needs widely scattered shrubs, forbs and grasses in broken terrain with gullies and washes.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There are two records of this species between 5 and 10 miles from the project site.
<i>Dipodomys ingens</i>	giant kangaroo rat	FE; MBHCP	SE	Occurs in annual grasslands on the western side of the San Joaquin Valley. Alkali scrub may offer marginally suitable habitat for this species. Needs level terrain and sandy loam soils for burrowing.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There is one historical record of this species between 5 and 10 miles from the project site.
<i>Dipodomys nitratoides brevinasus</i>	Short-nosed kangaroo rat	E; MBHCP	E SSC	Occurs on the western side of San Joaquin Valley in grassland and desert shrub associations, especially Atriplex. Occurs in highly alkaline soils around Soda Lake. Needs friable soils. Favors flat to gently sloping terrain.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There is one historical record of this species between 5 and 10 miles from the project site.
<i>Dipodomys nitratoides nitratoides</i>	Tipton kangaroo rat	FE; MBHCP	SE	Native to saltbrush scrub and sink scrub communities in the Tulare Lake Basin of the southern San Joaquin Valley. This species needs soft friable soils to dig its burrows which consist of elevated soil mounds at bases of shrubs in order to escape seasonal flooding.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There are three historical records of this species within 5 miles of the project site, eight historical records of this species between 5 and 10 miles from the project site, and two recent records of this species between 5 and 10 miles from the project site.

TABLE 4.4-2: SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	Habitat Requirements	Potential to Occur
<i>Eumops perotis californicus</i>	western mastiff bat	—	SSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	None. The project site does not contain suitable roosting habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species as a forager on the project site. There are two records of this species between 5 and 10 miles from the project site.
<i>Sorex ornatus relictus</i>	Buena Vista Lake ornate shrew	FE	SSC	Occurs in marshlands and riparian areas in the Tulare Basin. Prefers moist soil. Uses stumps, logs and litter for cover.	None. The project site does not contain suitable habitat that would support occurrence of this and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species. on the project site. There is one historical record of this species between 5 and 10 miles from the project site.
<i>Taxidea taxus</i>	American badger	—	SSC	Found in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. Requires sufficient food sources (rodents), friable soils, and open, uncultivated ground. Digs large burrows.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There is one historical record within 5 miles of the project site.
<i>Vulpes macrotis mutica</i>	San Joaquin kit fox	FE; MBHCP	ST	Occurs in annual grasslands or grassy open stages with scattered shrubby vegetation. Needs loose-textured sandy soils for burrowing, and suitable prey base.	Moderate. The project site may, under certain circumstances, contain suitable breeding habitat if the fields are allowed to go fallow for extended periods. The project may be accessed by foxes for foraging at any time. Intensive agricultural practices likely limit their occurrence. There are two recent records of this species within 5 miles of the project site, seven historical records of this species within 5 miles of the project site, nine recent records of this species between 5 and 10 miles from the project site, and 13 historical records of this species between 5 and 10 miles from the project site..

TABLE 4.4-2: SPECIAL-STATUS WILDLIFE SPECIES WITH THE POTENTIAL TO OCCUR ON THE PROJECT SITE

Scientific Name	Common Name	Federal Status ^a	State Status ^b	Habitat Requirements	Potential to Occur
Invertebrates					
<i>Helminthoglypta callistoderma</i>	Kern shoulderband	—	—	Terrestrial snail. Habitat requirements are poorly understood, but individuals have been observed in relatively mesic locations.	None. The project site does not contain suitable habitat that would support occurrence of this species, and intensive agricultural use of the project site and vicinity in recent and historical times has likely eliminated the possibility for occurrence of this species on the project site. There is one historical record for this species between 5 and 10 miles from the project site.
<i>Bombus crotchii</i>	Crotch’s bumble bee	FT	CE	Occurs in grassland and scrubland habitats. Nests in abandoned rodent burrows.	None. No habitat for this species is present on-site or adjacent to the project site. There is no historical record of this species in the project area.
Code Designations					
^a Federal Status: 2024 USFWS Listing			^b State Status: 2024 CDFW Listing		
ESU = Evolutionary Significant Unit is a distinctive population. FE = Listed as Endangered under the Endangered Species Act. FT = Listed as Threatened under the Endangered Species Act. FC = Candidate for listing (Threatened or Endangered) under Endangered Species Act. FD = Delisted in accordance with the Endangered Species Act. FPD = Federally Proposed to be Delisted. MBHCP = Covered under the MBHCP MBTA = protected by the Migratory Bird Treaty Act — = Not federally listed			SE = Listed as Endangered under the California Endangered Species Act (CESA). ST = Listed as Threatened under CESA. SSC = Species of Special Concern as identified by the CDFW. FP = Designated as Fully Protected under the Fish and Game Code. FGC = protected by Fish and Game Code Sections 3500–3516 CE = Candidate for listing as Endangered under CESA. — = Not State-listed		
SOURCE: FirstCarbon Solutions (FCS) 2024.					

Special-status Wildlife

Table 4.4-2, *Special-status Wildlife Species with the Potential to Occur on the Project Site*, identifies twenty (20) federal and State-listed threatened and/or endangered wildlife species and State Species of Special Concern that have been recorded within 10 miles of the project site or that are within the MBHCP plan area. These species include: western spadefoot toad (*Spea hammondi*), Bakersfield legless lizard (*Anniella grinnelli*), California legless lizard (*Anniella* spp.), California glossy snake (*Arizona elegans occidentalis*), western pond turtle (*Emys marmorata*), blunt-nosed leopard lizard (*Gambelia sila*), San Joaquin coachwhip (*Masticophis flagellum ruddocki*), coast horned lizard (*Phrynosoma blainvillii*), tricolored blackbird (*Agelaius tricolor*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), Crotch's bumble bee (*Bombus crotchii*), Nelson's antelope squirrel (*Ammospermophilus nelson*), giant kangaroo rat (*Dipodomys ingens*), short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), western mastiff bat (*Eumops perotis californicus*), Buena Vista Lake ornate shrew (*Sorex ornatus relictus*), American badger (*Taxidea taxus*), and San Joaquin kit fox (*Vulpes macrotis mutica*).

The table includes the species' status, required habitat types and features, and potential to occur within the project site. The table includes special-status wildlife species that have been determined unlikely to occur on-site, primarily based on the absence of suitable habitat and the lack of recorded occurrence in the project vicinity, along with the justification for their exclusion from further discussion.

The majority of species listed in **Table 4.4-2, *Special-status Wildlife Species with the Potential to Occur on the Project Site***, are not expected to occur on-site due to the lack of suitable habitat. The intensive agricultural practices on the project site and in the vicinity limit the dispersal of these species and their ability to establish self-sustaining populations. As a consequence, many special-status terrestrial mammals have no potential to occur on-site. The lack of suitable roosts on-site also precludes special-status bat species such as western mastiff bat from occurring.

Also due to the lack of suitable habitat many special-status reptiles have no potential to occur. The lack of suitable water features and riparian habitat on-site also precludes western pond turtle from occurring.

Two special-status species were assessed as having a moderate potential to occur on-site, as discussed below.

Birds

The project site does not contain any natural vegetation communities and consists entirely of fallowed agricultural fields or irrigated crop rows. At the time of field survey, most of the project site had just been fallowed with a portion to the east actively covered with irrigated crop. As a result, there is limited opportunity for birds to nest on-site. A row of pomegranate shrubs found along the property line between the project site and the Martin Feed store could provide suitable nesting habitat for some smaller shrub-nesting birds. However, the project site could still provide potentially suitable foraging habitat for special-status bird species such as burrowing owl and Swainson's hawk if the fields are left fallow for an extended period.

Burrowing Owl

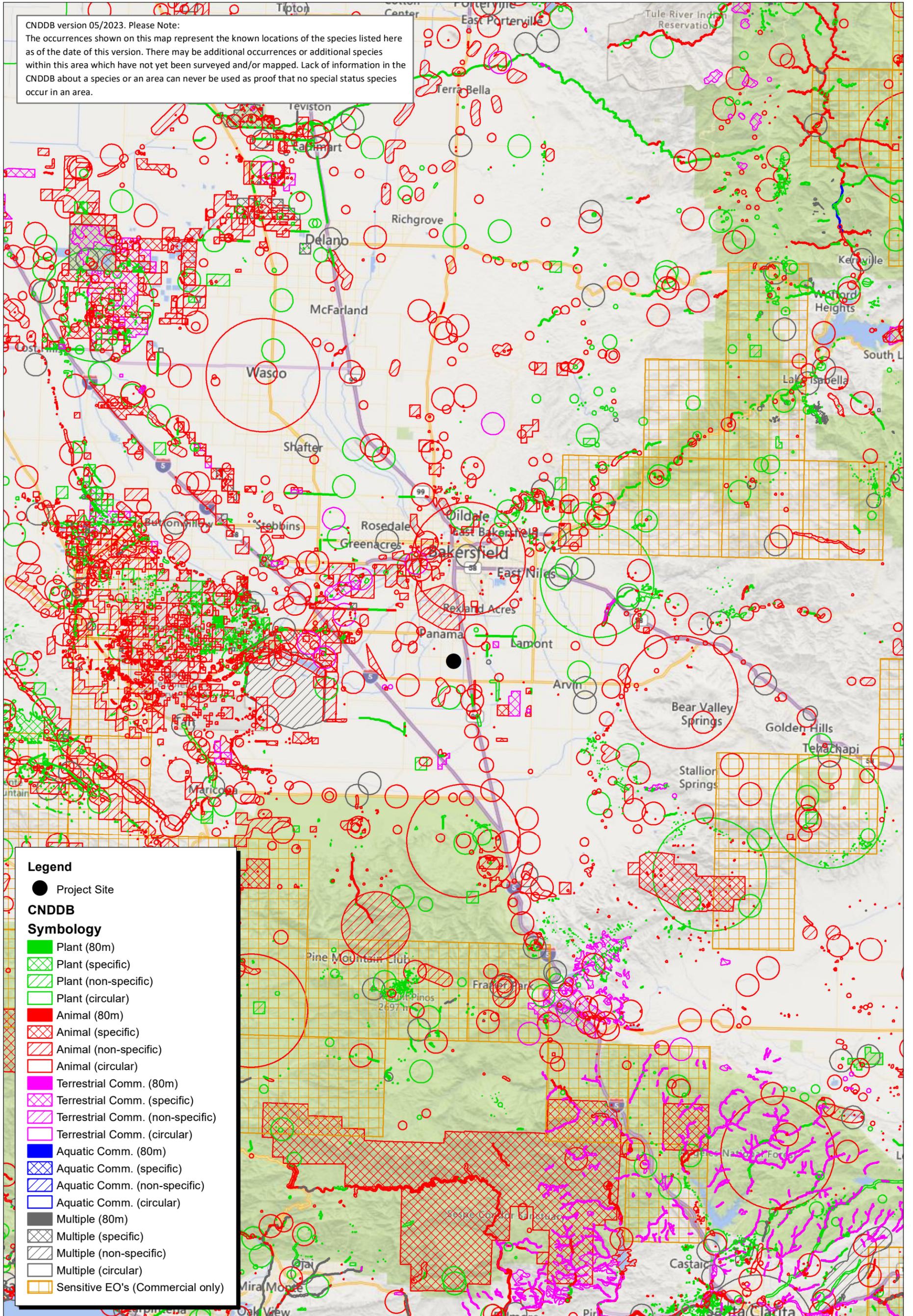
Burrowing owl occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. This species utilizes, modifies, and nests in burrows created by other species, most notably the California ground squirrel.

No suitable burrows or other small mammal activity was observed during the field survey. Therefore, there is a slight potential for burrowing owl to nest on-site in fallowed land. Additionally, burrowing owl may forage on-site on fallowed land. If the site becomes populated by California ground squirrels after being left fallow, it could potentially support breeding habitat for burrowing owls. There are four recorded occurrences of this species within 5 miles of the project site (CDFW 2023a).

Swainson's Hawk

Swainson's hawk is listed as Threatened under CESA. Swainson's hawk breeds in the western United States and Canada and winters in South America as far south as Argentina. The breeding season for Swainson's hawk in the Central Valley typically lasts from March to the end of July (CDFW 2000). It typically forages in open grasslands and has become increasingly dependent on agriculture, especially alfalfa crops, as native communities are converted to agricultural lands. The diet of the Swainson's hawk in California consists of small rodents such as voles; however, other small mammals, birds, and insects are also preyed upon. Swainson's hawk often nest near riparian woodlands. They will also use lone trees in agricultural fields or pastures, and roadside trees that are adjacent to suitable foraging habitat.

The project site lacks suitable nesting trees, therefore there is no potential for this species to nest on-site. However, there is the potential that Swainson's hawks may utilize the site for foraging. CNDDDB records indicate two recent Swainson's hawk occurrences near SR-99 (**Figure 4.4-2: CNDDDB Special-Status Species Occurrences**). Suitable foraging habitat is also present directly adjacent to the project site in all directions.



Source: Bing Street Imagery. California Natural Diversity Database (CNDDDB), May 2023.

Figure 4.4-2
 CNDDDB Special-Status
 Species Occurrences



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Sensitive Natural Communities

Sensitive habitats and vegetation communities are those that are considered rare in the region, support special-status plant or animal species, or receive regulatory protection, including those that are of special concern to resource agencies or are afforded specific consideration through CEQA Guidelines. In addition, vegetation communities listed by the CDFW as having the highest inventory priorities are considered sensitive. Sensitive natural communities do not occur within the project site due to the agricultural use of lands and lack of natural vegetation communities.

Critical Habitat

The project site does not lie within USFWS-designated Critical Habitat for any federally listed species (USFWS 2021).

Wildlife Movement Corridors

The entirety of the site consists of fallowed agricultural fields or irrigated crop rows and does not contain habitat features such as riparian corridors or waterways that could function as wildlife corridors. The project site is also surrounded by roads, commercial developments, orchards, and agricultural fields that limit wildlife movement.

Surface Hydrology and Jurisdictional Waters

Jurisdictional waters include aquatic resources such as streams, creeks, lakes, riparian areas, wetlands, and certain aquatic vegetation communities, which are considered sensitive biological resources and can fall under the jurisdiction of federal and/or State regulatory agencies including the USACE, CDFW, and/or Regional Water Quality Control Board (RWQCB). The definitions of the extent of regulatory agency jurisdictions are described in **Section 4.4.3**, Regulatory Setting, below (**Section 4.4.4**, Impacts and Mitigation Measures).

The project site does not contain any potentially jurisdictional waterbodies or wetlands, nor does it lie adjacent to any potentially jurisdictional water body.

4.4.3 Regulatory Setting

Federal

Endangered Species Act of 1973 (United States Code [USC], Title 16, §§ 1531–1543)

The Endangered Species Act and subsequent amendments provide guidance for the conservation of listed Endangered and Threatened species and the ecosystems upon which they depend. In addition, the Endangered Species Act defines species as Threatened or Endangered and provides regulatory protection

for listed species. The Endangered Species Act also provides a program for the conservation and recovery of Threatened and Endangered species as well as the conservation of designated Critical Habitat that USFWS determines is required for the survival and recovery of these listed species.

Section 9 lists those actions that are prohibited under the Endangered Species Act. 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 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an Incidental Take Permit (ITP). Application procedures are found at Code of Federal Regulation, Title 50, Sections 13 and 17 for species under the jurisdiction of the USFWS and Code of Federal Regulations, Title 50, Sections 217, 220, and 222 for species under the jurisdiction of the National Marine Fisheries Service (NOAA).

Endangered Species Act Section 4(a)(3) and (b)(2) requires the designation of Critical Habitat to the maximum extent possible and prudent based on the best available scientific data and after considering the economic impacts of any designations. Critical Habitat is defined in Endangered Species Act Section 3(5)(A): (1) areas within the geographic range of a species that are occupied by individuals of that species and contain the primary constituent elements (physical and biological features) essential to the conservation of the species, thus warranting special management consideration or protection; and (2) areas outside of the geographic range of a species at the time of listing but that are considered essential to the conservation of the species.

Migratory Bird Treaty Act (USC, Title 16, §§ 703–711)

The MBTA, first enacted in 1918, domestically implements a series of treaties between the United States and Great Britain (on behalf of Canada), Mexico, Japan, and the former Soviet Union that provide for international migratory bird protection. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds; the act provides that it shall be unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird” (USC, Title 16, § 703). The current list of species protected by the MBTA includes several hundred species and essentially includes all native birds. Permits for take of nongame migratory birds can be issued only for specific activities, such as scientific collecting, rehabilitation, propagation, education, taxidermy, and protection of human health and safety and personal property.

Bald and Golden Eagle Protection Act of 1940 (USC, Title 16, § 668, enacted by 54 Statute 250)

The Bald and Golden Eagle Protection Act of 1940 protects bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) by prohibiting the taking, possession, and commerce of these species, and establishes civil penalties for violation of this act. Take of bald and golden eagles includes to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb.” To disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific

information available, (1) injury to an eagle; (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior; or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior (Federal Register, volume 72, page 31132; 50 CFR 22.3).

Federal Clean Water Act (USC, Title 33, §§ 1251–1376)

The federal Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project proponent for a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain State certification, thereby ensuring that the discharge would comply with provisions of the CWA. The RWQCB administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The USACE implementing regulations are found at Code of Federal Regulations, Title 33, Sections 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the EPA in conjunction with the USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

State

California Endangered Species Act (California FGC § 2050 *et seq.*)

CESA establishes the policy of the State to conserve, protect, restore, and enhance listed Threatened or Endangered species and their habitats. CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of Threatened or Endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no State agency consultation procedures under CESA. For projects that would affect a listed species under both CESA and the federal Endangered Species Act, compliance with the Endangered Species Act would satisfy CESA if the CDFW determines that the federal incidental take authorization is "consistent" with CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under CESA only, the project applicant would have to apply for a take permit under Section 2081(b).

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, waters of the State fall under the jurisdiction of the appropriate RWQCB. Under the act, the RWQCB must prepare and periodically update water quality control basin plans. Each basin plan sets forth water quality standards for surface water and groundwater, as well as actions to control nonpoint and point sources of pollution to achieve and maintain these standards. Projects that affect wetlands or waters must meet waste discharge requirements of the RWQCB, which may be issued in addition to a water quality certification or waiver under CWA Section 401.

California Fish and Game Code

Sections 1600 through 1616

Under these sections of the California Fish and Game Code, the project applicant is required to notify the CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a “stream” is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. The CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, the CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the proposed project.

Sections 2080 and 2081

Section 2080 of the states that “No person shall import into this State [California], export out of this State, or take, possess, purchase, or sell within this State, any species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act.” Pursuant to Section 2080.1 or 2081 of the California Fish and Game Code, the CDFW may authorize individuals or public agencies to import, export, take, or possess State-listed Endangered, Threatened, or Candidate species. These otherwise prohibited acts may be authorized through permits or memoranda of understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project applicant ensures adequate funding to implement the measures required by the CDFW, which makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

Sections 3503, 3503.5, 3513, and 3800

Under these sections of the California Fish and Game Code, the project applicant is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey or their nests or eggs; the taking or possessing of any migratory nongame bird as designated in the MBTA; the taking, possessing, or needlessly destroying of the nest or eggs of any bird; or the taking of any nongame bird pursuant to California Fish and Game Code Section 3800.

Sections 3511, 4700, 5050, and 5515

Protection of designated Fully Protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of Fully Protected species. The

CDFW is unable to authorize incidental take of Fully Protected species when activities are proposed in areas inhabited by those species.

Sections 4000 through 4003

Under Section 4000 of the California Fish and Game Code, it is unlawful to conduct activities that would result in the taking, possessing, or destroying of any fur-bearing mammals, including kit foxes, without prior authorization from the CDFW.

CEQA Guidelines Section 15380

In addition to the protections provided by specific federal and State statutes, CEQA Guidelines Section 15380(b) provides that a species not listed on the federal or State list of protected species nonetheless may be considered rare or endangered for purposes of CEQA if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in the Endangered Species Act and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in CEQA Guidelines primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either the USFWS or CDFW. Thus, CEQA Guidelines provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not at present have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected and requires findings of significance if there would be substantial losses. Natural communities listed by the CNDDDB as sensitive are considered by the CDFW to be significant resources and fall under the CEQA Guidelines for addressing impacts. Local planning documents such as general plans often identify these resources as well.

Native Plant Protection Act (California FGC §§ 1900–1913)

California's NPPA requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification to the CDFW at least 10 days in advance of any change in land use. This allows the CDFW to salvage listed plant species that otherwise would be destroyed. The project applicant is required to conduct botanical inventories and consult with the CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

Local

Metropolitan Bakersfield Habitat Conservation Plan

The proposed 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 a Habitat Conservation Plan 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 proposed project.

Metropolitan Bakersfield General Plan

The Metropolitan Bakersfield General Plan provides guidance for reviewing agencies to review projects in the planning area. The plan includes a Conservation Element that guides decisions pertaining to protection of sensitive biological resources, including special-status plants and wildlife and sensitive habitats and vegetation communities. The element states goals for protecting these resources, including:

Chapter V—Conservation Element

Biological Resources

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 for 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 3** Discourage, where appropriate, the use of off-road vehicles to protect designated sensitive biological and natural resources.

4.4.4 Impacts and Mitigation Measures

This section evaluates the impacts to biological resources that may occur during construction and operation of the proposed project. It describes the sensitive biological resources located on and adjacent to the project site that may be affected and identifies the thresholds used to determine whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, where applicable.

Methodology

The following impact analysis is based on existing and potential biological resources occurring on the project site and project vicinity that have been identified through a review of relevant literature and a general biological resource assessment. Biological resources evaluated include sensitive habitats, special-status plant and animal species, and potential for wildlife movement corridors. The potential for special-status species to occur on the project site is based, in part, on the results of database research, biological assessments, surveys conducted on the project site and vicinity (within 10 miles), presence of suitable

habitat, and the proximity of the project site to previously recorded occurrences in the CNDDDB, CDFW, and USFWS data. Other sources of information used include aerial photographs, topographic maps, soil survey maps, geological maps, climatic data, previous biological studies, and project plans.

Field Surveys

FCS Biologists conducted a general biological survey of the project site on April 26, 2023. The impact analyses presented here address potential biological resources located on the project site based on results of the field survey is detailed in Appendix C of this Draft EIR.

Thresholds of Significance

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

A project would have a significant adverse effect on biological resources if it:

- a. Has 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;
- b. Has 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 the USFWS;
- c. Has a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- d. 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;
- e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
- f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State Habitat Conservation Plan.

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 a special-status species in local or regional plans, policies, or regulations or by California Department of Fish and Wildlife or United States Fish and Wildlife Service.

Overview

The proposed project has the potential to impact special-status plants and wildlife through the loss of habitat, as well as direct and indirect impacts on species, such as mortality of individuals or interference with reproductive success. Potential impacts to special-status plants and wildlife from construction and operation and maintenance are discussed below.

Construction

Special-status Plants

The project site is currently utilized for agriculture production. Because of the absence of suitable habitat, including naturally occurring vegetation communities such as chenopod scrub, valley and foothill grasslands or pinyon and juniper woodlands, no special-status plant species are expected to occur on the project site. The extent and frequency of ground disturbance from tilling, herbicide application, and competition from non-native species do not promote the establishment of or provide suitable conditions for rare plants, which are typically sensitive to these types of disturbances. Moreover, the project site lacks microhabitats such as riparian habitats, vernal pools, seasonal marshes, or alkaline soils that are necessary to support many rare plants known to occur within Kern County. Therefore, impacts to special-status plants would be less than significant.

Special-status Wildlife

As indicated under “Potential to Occur,” the majority of species listed in **Table 4.4-2, *Special-status Wildlife Species with the Potential to Occur on the Project Site***, are not expected to occur on-site due to the lack of suitable habitat as well as surrounding land occupation and agricultural uses which limit the dispersal of these species and their ability to establish self-sustaining populations. However, several special-status species that are tolerant of agricultural practices could inhabit and breed on the project site, particularly if it is left fallow for an extended period following harvest of the crops. These species, discussed further below, include Swainson’s hawk and burrowing owl. Construction of the proposed project could result in direct impacts to these special-status species if present. Also, the project site could potentially provide suitable habitat for migratory birds and raptors protected under the MBTA and the California Fish and Game Code. Construction of the proposed project could result in direct impacts to these native and migratory species if present. Individual discussions for special-status species and migratory birds and raptors that could occur on the project site are further discussed below.

Birds

The project site does not contain any trees or natural vegetation communities and consists entirely of active agricultural fields. At the time of field survey, the project site was covered by fallowed field and irrigated crop rows. As a result, there is currently limited opportunity for birds to nest on-site. A row of pomegranate shrubs is located along the property line between the project site and the Martin Feed store could provide suitable nesting habitat for some smaller shrub-nesting birds. However, if the site is left fallow, the project site could potentially provide suitable foraging habitat for special-status bird species, including burrowing owl and Swainson’s hawk. Potential project impacts to each of these species is discussed below.

Burrowing Owl

No suitable burrows or burrowing mammals were observed during the field survey. However, in fallowed fields, particularly if they become inhabited by California ground squirrels, there is potential for transient burrowing owls to nest or forage on-site. There are four recorded occurrences of burrowing owls within 5 miles of the project site (CDFW 2023a). Based on the proximity of species occurrences and the potential for the site to provide foraging or nesting habitat, there is a moderate potential that the species could occur there. Construction of the proposed project could result in direct impacts to this species if present.

Implementation of **Mitigation Measures MM 4.4-1 through 4.4-5, MM 4.4-10, and MM 4.4-11** which includes the project proponent retaining a Lead Biologist and conducting a pre-construction burrowing owl surveys implemented per CDFW (2012) protocol to identify any occupied burrows that may require avoidance, would reduce the potential impacts and a mitigation plan if burrowing owls are identified on-site. Implementing these mitigation measures would ensure that no nesting or foraging burrowing owls are impacted during construction. Therefore, impacts to burrowing owl would be less than significant with mitigation.

Swainson's Hawk

Suitable Swainson's hawk nesting trees are not located on the project site or on adjacent properties, and the species is not expected to nest on or adjacent to the project site. However, the project site could provide foraging habitat for any Swainson's hawks located within disturbance distance of the project site. If active Swainson's hawk nesting is present within 10 miles of the project site, the development of the proposed project could result in the loss of potential foraging habitat in the form of agricultural land. Based on the potential for the site to provide foraging habitat, particularly if it is left fallow, there is a moderate potential that the species could occur there. Construction of the proposed project could result in direct impacts to this species if present.

To reduce potentially significant impacts to Swainson's hawk, **Mitigation Measures MM 4.4-3, 4.4-4, 4.4-10, and 4.4-11** shall be implemented, which includes avoidance and minimization construction monitoring and pre-construction clearance surveys, and protocol-level Swainson's hawk surveys to be implemented in accordance with the CDFW Guidelines (CDFW 1994; 2000). With implementation of these mitigation measures, impacts would be less than significant.

Migratory Birds

While the project site does not contain any trees or natural vegetation communities that provide suitable nesting habitat for most bird species, there is potential for ground nesting birds to nest on the project site and adjacent properties. Construction activities that occur during the avian nesting season (generally February 1 to August 31) could disturb nesting sites for bird species protected under the Fish and Game Code or MBTA. Construction of the proposed project could result in direct impacts to this species if present. Project-related direct impacts on nesting birds during construction could include crushing of or vehicle collisions with nesting birds and/or destruction of nests and eggs during vegetation clearing and grading with heavy machinery. Potential indirect impacts include interference with reproductive success and nest abandonment in adjacent areas from increased human presence and increased noise levels (and vibration) from project construction. To reduce potentially significant impacts to nesting birds, **Mitigation Measures MM 4.4-3 through 4.4-6, and 4.4-10 through 4.4-11** shall be implemented, which require implementation of pre-construction clearance surveys as well as avoidance and minimization measures.

Operations and Maintenance

Impacts to special-status species are unlikely to result from project operation and maintenance activities because project implementation during construction would remove potential foraging or nesting habitat for any transient special-status species on the project site. Therefore, potential impacts would be limited to initial project construction and no further mitigation is required.

Mitigation Measures

MM 4.4-1 Prior to initiation of any site preparation and/or construction activities, the project proponent shall retain a Lead Biologist. The Lead Biologist retained by the project proponent shall only utilize a qualified Biologist for all work on reports submitted for any application for project permit. The qualified Biologist must have a Bachelor of Science Degree or Bachelor of Arts Degree in biology or related environmental science, have demonstrated familiarity with the natural history, habitat affinities and identification of Covered Species of the San Joaquin Valley and have conducted work in California for at least 1 year of field level reconnaissance survey work in the San Joaquin Valley. The resume of the Biologist preparing any report submitted for permits shall be included in the report. Lack of these specific qualifications will result in immediate rejection of the report without further review. The Lead Biologist will have oversight over implementation of all necessary avoidance and minimization efforts and will have the authority to stop construction activities, if any of the requirements associated with these measures are not being fulfilled. If the Biologist has requested work activities stop due to take of any listed species, the U.S and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW) will be notified within 1 day via email and telephone.

MM 4.4-2 Prior to the issuance of grading or building permits and for the duration of construction activities, all new construction workers at the project site shall attend an Environmental Awareness Training and Education Program, developed and presented by the Lead Biologist. Any employee responsible for the operations and maintenance or decommissioning of the project facilities shall also attend the Environmental Awareness Training and Education Program.

- a. The Training Program shall include, but not be limited to, information on the life history of species (if applicable) including the blunt-nosed leopard lizard, San Joaquin whipsnake, coast horned lizard, burrowing owl, Swainson's hawk, prairie falcon, Le Conte's thrasher, Nelson's antelope squirrel, giant kangaroo rat, short-nosed kangaroo rat, Tipton kangaroo rat, Tulare grasshopper mouse, San Joaquin pocket mouse, American badger, nesting birds, and San Joaquin kit fox, as well as other wildlife and plant species that may be encountered during construction activities, their legal protections, the definition of "take" under the Endangered Species Act, measures to protect the species, reporting requirements, specific measures that each worker shall employ to avoid take of wildlife species, and penalties for violation of the Act.
- b. To ensure employees and contractors understand their roles and responsibilities, training may be conducted in languages other than English.

- c. An acknowledgment form signed by each worker indicating that Environmental Awareness Training and Education Program has been completed would be kept on record.
- d. A sticker shall be placed on hard hats indicating that the worker has completed the Environmental Awareness Training and Education Program. Construction workers shall not be permitted to operate equipment within the construction areas unless they have attended the Environmental Awareness Training and Education Program and are wearing hard hats with the required sticker.
- e. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the Environmental Awareness Training and Education Program and copies of the signed acknowledgment forms shall be submitted to the Kern County Planning and Natural Resources Department.
- f. The construction crews and contractor(s) shall be responsible for unauthorized impacts from construction activities to sensitive biological resources that are outside the areas defined as subject to impacts by project permits.
- g. An Operation and Maintenance-phase version of the Environmental Awareness Training and Education Program will be maintained on-site for review as may be necessary during the life of the project.
- h. All vehicles will be directed to exercise caution when commuting within the project area. A 15 mile per hour (mph) speed limit shall be enforced on unpaved roads.
- i. Project employees will be provided with written guidance governing vehicle use, speed limits on unpaved roads, fire prevention, and other hazards.
- j. A litter control program shall be instituted at the project site. All workers shall ensure their food scraps, paper wrappers, food containers, cans, bottles, and other trash from the project area are deposited in covered or closed trash containers. The trash containers shall be removed from the project area at the end of each working day.
- k. No canine or feline pets or firearms (except for federal, State, or local law enforcement officers and security personnel) shall be permitted on construction sites to avoid harassment, killing, or injuring of listed species.
- l. Maintenance and construction excavations greater than 2 feet deep shall be covered, filled in at the end of each working day, or have earthen escape ramps no greater than 200 feet apart provided to prevent entrapment of listed species.
- m. 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.
- n. Because dusk and dawn are often the times when listed species are most actively foraging, all construction activities shall cease 0.5 hour before sunset and shall not begin prior to 0.5 hour before sunrise. Except when necessary for driver or pedestrian safety, lighting of the project site by artificial lighting during nighttime hours is prohibited.

- o. Tightly woven fiber netting or similar material shall be used for erosion control or other purposes at the project site to ensure that special-status species do not get trapped. This limitation will be communicated to the contractor through use of Special Provisions included in the bid solicitation package.
- p. Use of rodenticides and herbicides at the project site shall be avoided to the maximum extent feasible. If use is unavoidable, rodenticides and/or herbicides shall be utilized in such a manner to prevent primary or secondary poisoning of special-status species and depletion of prey populations on which they depend. All uses of such compounds shall observe labels and other restrictions mandated by the United States Environmental Protection Agency (EPA), California Department of Pesticide Regulation, and other appropriate State and federal regulations as well as additional project-related restrictions deemed necessary by the United States Fish and Wildlife Service (USFWS) or California Department of Fish and Wildlife (CDFW).

MM 4.4-3

A pre-construction survey by a qualified Biologist or monitor shall be conducted no more than 30 days and no less than 14 days prior to the commencement of any site preparation, ground disturbance, and/or construction activities in previously undisturbed areas of the project site. If any evidence of occupation of that portion of the project site by listed or other special-status plant or animal species is observed, a buffer shall be established by a qualified Biologist that results in sufficient avoidance to comply with applicable regulations. If sufficient avoidance cannot be established, the U.S. Fish and Wildlife Service and California Department of Fish and Wildlife shall be contacted for further guidance and consultation on additional measures. The project proponent or operator shall obtain any required permits from the appropriate wildlife agency. Copies of the pre-construction survey and results, as well as all permits and evidence of compliance with applicable regulations, shall be submitted to the Kern County Planning and Natural Resources Department.

The following buffer distances shall be established prior to commencement of any site preparation and/or construction activities as applicable, if any listed or other special-status plant or animal species is observed:

- a. San Joaquin kit fox or American badger potential den: 50 feet;
- b. San Joaquin kit fox or American badger known den: 100 feet;
- c. San Joaquin kit fox or American badger pupping den: contact the United States Fish and Wildlife Service and California Department of Fish and Wildlife;
- d. Burrowing owl burrow outside of breeding season: as recommended by the California Department of Fish and Wildlife Staff Report 2012;
- e. Burrowing owl burrow during breeding season: as recommended by the California Department of Fish and Wildlife Staff Report 2012;
- f. Swainson's hawk nest during breeding season: 0.5 mile (if applicable);
- g. Other protected raptor nests during the breeding season: as recommended by a qualified Biologist;

- h. Other protected nesting migratory bird nests during the breeding season: as recommended by a qualified Biologist; and coast horned lizard, San Joaquin whipsnake, and other special-status wildlife species: as recommended by a qualified Biologist.

Buffer zones may be adjusted in consultation with the USFWS and/or CDFW and the Lead Agency.

MM 4.4-4 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. 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) shall be established. Construction activities in the buffer zone shall be prohibited until the young have fledged the nest and achieved independence.
- 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 MBTA and California Fish and Game Code.

MM 4.4-5 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 (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.

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, CDFW's Staff Report recommends that impacts to occupied burrows be avoided 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).

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1–August 15	200 m*	500 m	500 m
Nesting sites	August 16–October 15	200 m*	200 m	500 m
Nesting sites	October 16–March 31	50 m	100 m	500 m

Notes;
*meters (m)

If burrow avoidance is infeasible during the nonbreeding 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.

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, Mitigation Land Management Plan shall include a requirement for the permanent conservation of off-site 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 nonbreeding 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 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 off-site mitigation requirements of the proposed project if the compensatory habitat is deemed suitable to support the species.

MM 4.4-6 Prior to issuance of grading or 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 daily.

MM 4.4-7 Prior to and during construction activities, the project proponent shall ensure the project complies with the following:

- a. Any pipe, culvert, or similar structure with a diameter of 4 inches or greater, stored on-site for one or more nights shall be inspected to ensure kit foxes or other wildlife have not become entrapped or buried in the pipes. If the pipes, culverts, or similar structures with a diameter of 4 inches or greater are not capped or otherwise covered, they shall be inspected twice daily, in the morning and evening, and prior to burial or closure, to ensure no kit foxes or other wildlife become entrapped or buried in the pipes.
- b. All food, garbage, and plastic shall be disposed of in closed containers and regularly removed from the site to minimize attracting ranging kit fox, or other wildlife to the site where they may be harmed. All trash shall be removed and disposed of regularly in accordance with State and local laws and regulations.

MM 4.4-8 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 4.4-9 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 (MBTA) and applicable State regulations.

MM 4.4-10 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 4.4-11 The measures below shall be implemented throughout construction and operation of the project:

- a. Project-related vehicles shall observe a 15 mile per hour (mph) speed limit in all project areas, except on county roads and State and federal highways. Construction after sundown shall be prohibited. Off-road traffic outside of designated project areas shall be prohibited.
- b. No pets shall be allowed in project areas, except for trained canine animals related to security and operation of the facility.
- c. All uses of such herbicidal and rodenticide compounds shall observe label and other restrictions mandated by the United States Environmental Protection Agency (EPA),

California Department of Food and Agriculture, and federal and State legislation as well as additional project-related restrictions deemed necessary by the California Department of Fish and Wildlife and/or the United States Fish and Wildlife Service.

- d. No plants or wildlife shall be collected, taken, or removed from the construction areas or areas of off-site improvements, except as necessary for project-related vegetation removal or wildlife relocation. Salvage of native vegetation to be removed from construction areas is encouraged, but shall only be performed by qualified biologists and with written approval from the California Department of Fish and Wildlife.
- e. If San Joaquin kit fox known or pupping dens are observed in project areas, the project proponent shall contact the United States Fish and Wildlife Service and California Department of Fish and Wildlife to discuss appropriate actions.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.4-1 through MM 4.4-11**, impacts would be less than significant.

Impact 4.4-2: The project would have a substantial adverse effect on any riparian habitat or other sensitive natural community, or jurisdictional waters, identified in local or regional plans, policies, or regulations or by CDFW or USFWS.

The project site consists almost entirely of active crop rows and fallowed fields and contains no naturally occurring streams or water features that are conducive to vegetation communities that comprise riparian habitat. As sensitive natural communities and riparian habitats are absent from the project site, implementation of the proposed project would not result in adverse impacts to any sensitive natural community or riparian habitat removal. No impacts on sensitive natural communities or riparian habitat would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact.

Impact 4.4-3: The project would have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

As described under **Impact 4.4-2**, the project site consists of active agricultural fields and does not contain any wetlands or natural wetland or riparian vegetation communities. The project site does not contain any potentially jurisdictional waterbodies or wetlands that may fall under the jurisdiction of federal and/or State regulatory agencies including the USACE and CDFW. The project site does not lie adjacent to any potentially jurisdictional water body, either. Therefore, the proposed project would have no impact on federally protected wetlands or waters.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

No impact.

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 native wildlife nursery sites.

As discussed under **Impact 4.4-3**, 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 **4.4-11**, the proposed project is not expected to adversely impact nesting birds and impacts would be less than significant. Although the proposed project would introduce structures to the project site that could physically impede wildlife movement in certain areas and directions, the project site is not located within a known wildlife migratory corridor. Additionally, the agricultural lands and existing roadways that surround the project site in all directions significantly impede any existing terrestrial wildlife movement. Therefore, the proposed project is not expected to adversely impact wildlife movement and impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.4-4** and **MM 4.4-10** through **4.4-11** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.4-4** and **MM 4.4-10** through **MM 4.4-11**, impacts would be less than significant.

Impact 4.4-5: The project would not conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

As discussed under **Impacts 4.4-1** through **4.4-6**, biological resources identified in the Metropolitan Bakersfield General Plan shall be protected in accordance with State and federal laws including CEQA. Additionally, as designed, the proposed project includes an Amendment to the Land Use, Open Space, and Conservation Element of the Metropolitan Bakersfield General Plan to ensure consistency is achieved between the proposed LI (Light Industrial) land use designation and proposed zoning of M-1 PD (Light Industrial – Precise Development Combining). Further, the proposed development would conform with development standards outlined within the Kern County Code of Ordinances, which includes Title 13, Parks, Recreation Areas and Public Places, as well as Title 19, Zoning Ordinance. Therefore, the proposed project would not be in conflict with local policies or ordinances protecting biological resources and impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance After Mitigation

Impacts would be less than significant.

Impact 4.4-6: 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.

The project is located within the plan area for the previously applicable MBHCP that expired January 1, 2023, and therefore does not apply to the project. As there is no other adopted conservation plan in effect, the proposed project does not conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or State HCP. Therefore, no impacts would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance

No impacts.

Cumulative Setting, Impacts, and Mitigation Measures

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. The geographic context for analysis of cumulative impacts to biological resources includes the southern San Joaquin Valley. As described in **Table 3-5, Cumulative Projects List**, in **Chapter 3, Project Description**, of this Draft EIR, other projects with similar species effects have been completed within the San Joaquin Valley.

The proposed project would have no impacts on riparian habitat or other sensitive natural community, jurisdictional waters, State or federally protected wetlands, or wildlife corridors, nor would it conflict with local tree preservation ordinances, Habitat Conservation Plan, Natural Community Conservation Plan, or other conservation plan, so the proposed project would not contribute to cumulative impacts with respect to these issues.

Potential project impacts to special-status species (burrowing owl, Swainson's hawk) and wildlife nursery sites (nesting birds) would be mitigated to a less than significant level with the implementation of **Mitigation Measures MM 4.4-1 through MM 4.4-11**. Given the number of present and reasonably foreseeable future development projects in the southern San Joaquin Valley, the proposed project, when combined with other projects, could have an incremental contribution to cumulative loss of breeding and foraging habitat for special-status species and nesting birds. Because other similar developments would be required to comply with requirements pertaining to the protection of special-status species and nesting birds, as well as policies pertaining to overall land use vision, design review regulations and policies in local and

regional plans, cumulative impacts to biological resources would be considered less than significant. Additionally, the proposed project's incremental contribution would not be cumulatively considerable with implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-111**.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-11**.

Level of Significance After Mitigation

With the implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-11** cumulative impacts would be less than significant to transient wildlife species, including burrowing owls, Swainson's hawk and other raptors, and migratory birds, as well as foraging and nesting habitat of special-status and migratory species in the southern San Joaquin Valley.

Section 4.5 **Cultural Resources**

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4.5.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) provides contextual background information for cultural resources that may exist within the project site, including the site's prehistoric, ethnographic, and historical settings of the region. This section also summarizes the results of a cultural resources assessment, including records search, cultural resources survey of the project site, and significance evaluation of identified resources.

This section is based, in part, on a cultural resources technical report titled; Phase I Cultural Resources Assessment (Phase I CRA) for the Westside Industrial Project prepared by FirstCarbon Solutions (FCS 2023c) provided in Appendix D of this Draft EIR. The report details the results of a cultural resources records search, field survey, and resource evaluations for the project, along with Native American Consultation conducted by FCS in accordance with Assembly Bill (AB) 52. The report was prepared in compliance with Section 5024.1 of the California Public Resources Code and California Environmental Quality Act (CEQA) to identify archaeological, historic built architectural, and other cultural resources in the project site. Because of the confidential nature of the location of cultural resources, information regarding locations of cultural resources has been removed from the report and is not included in the appendix.

Cultural Resource Terminology

For the purposes of CEQA, “cultural resources” generally refer to prehistoric and historical archaeological sites, isolates, and the built environment. Cultural resources can also include areas determined to be important to Native Americans.

Below are definitions of key cultural resources terms used in this section:

- **Alluvium:** a fine-grained fertile soil consisting of mud, silt, and sand deposited by flowing water on flood plains, in riverbeds, and in estuaries.
- **Archaeological Site:** A site is a 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 nonutilitarian 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). Prehistoric archaeological sites generally represent the material remains of Native American groups and their activities dating to the period before European contact. In some cases, prehistoric 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 activities during the Historic Period.
- **Artifact:** An object that has been made, modified, or used by a human being.
- **Cultural Resource:** Cultural resources are expressions of human culture and history in the physical environment, and may include archaeological sites, buildings, structures, objects, districts, works

of art, architecture, and natural features that were important in past human events. They may consist of physical remains, but also may include 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.

- **Ethnographic:** Relating to the study of human cultures. “Ethnographic resources” represent the heritage resources 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 Historic Period begins with the arrival of the first nonnative population and thus varies by area. In 1772, Commander Don Pedro Fages was the first European 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 (Section 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 Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 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.
- **Holocene:** Of, denoting, or formed in the second and most recent epoch of the Quaternary Period, which began 11,700 years ago at the end of the Pleistocene.
- **Isolate:** An isolated artifact or small group of artifacts that appear to reflect a single event or activity. Because isolates may lack identifiable context, and may not have the potential to add important information about a region, culture, or person, they are generally not considered under CEQA to be historical or unique archaeological resources (Public Resources Code [PRC] § 21083.2 and CEQA Guidelines § 15064.5).
- **Lithic:** Of or pertaining to stone. Specifically, in archaeology lithic artifacts are chipped or flaked stone tools, and the stone debris resulting from their manufacture.
- **Pleistocene (Ice Age):** An epoch in the Quaternary Period of geologic history lasting from 1.8 million to 10,000 years ago. The Pleistocene was an epoch of multiple glaciation, during which continental glaciers covered nearly one-fifth of the Earth’s land.
- **Prehistoric Period:** The era prior to 1772. The later part of the Prehistoric Period 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.
- **Stratigraphy:** The natural and cultural layers of soil that make up an archaeological deposit, and the order in which they were deposited relative to other layers.
- **Tribal Cultural Resource (TCRs):** 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 Public Resources Code Section 21083.2(g) as an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is 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 prehistoric or historic event or person.

4.5.2 Environmental Setting

The project site is located at the southern end of San Joaquin Valley, located in unincorporated Kern County, California. The project site is approximately 93.74 acres (overall project is 99.28 acres which consists of 5.54 acres of right-of-way dedication) and is part of a larger 642.68-acre parcel known as Assessor's Parcel Number (APN) 184-391-08. The project site is located approximately 10 miles south of downtown Bakersfield in unincorporated Kern County. The project site is located along Houghton Road, approximately 1.25 miles west of State Route (SR) 99 and 8.75 miles east of Interstate 5 (I-5). The Kern Island Canal and the unincorporated community of Alameda are located approximately 1 mile east of the project site. The project vicinity is characterized by cultivated agricultural uses (row crops and orchards) as well as agricultural processing facilities. **Figure 3-2, Local Vicinity Map**, provides an overview of the project site and surroundings.

The project site is located on the *Connor, California* United States Geological Survey (USGS) 7.5-minute Topographic Quadrangle Map, Township 31 South, Range 27 East, Section 13 (Latitude 35° 14' 0" North; Longitude 119° 2' 0" West).

Kern County is California's third largest county in land area and encompasses approximately 8,202 square miles. The County's geography includes, among others, mountainous areas, agricultural lands, and deserts. The County's dominant land use is agriculture. Bakersfield is the largest city in Kern County and has a current estimated population of 408,373 residents (California Department of Finance [CDF] 2023a). The County's current estimated population is 907,476 residents (CDF 2023a).

The elevation of the project site is approximately 330 feet above mean sea level (AMSL), with elevation sloping gradually upward from north to south. The project site is situated in a region that is characterized by an uneven plain consisting of extensive alluvial fans, debris flows, and over-bank deposits.

Vegetation on the valley floor is predominated by modern cultigens and other nonnative species, such as Russian thistle (tumbleweed) and grasses, but also includes cheatgrass and doveweed.

Prehistoric Setting

The following is a brief overview of the prehistoric and historic background of the general area, which provides context to understand 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 ethnographic studies, mission records, and major published sources, including Beardsley (1948 and 1954), Bennyhoff (1950), Fredrickson (1973), Kroeber (1925), Moratto (1984), Chartkoff and Chartkoff (1984), Heizer (ed. 1978), and Jones and Klar (2007).

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. These investigations of the artifacts of the San Joaquin Valley's prehistoric 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. These patterns include:

- Early Period (12,000 Before Present [BP] to 8000 BP)
- Middle Period (8000 BP to 2500 BP)
- Late Period (2500 BP to Ethnohistoric Present)

Brief descriptions of these temporal ranges and their unique characteristics follow.

Early Period (12,000 BP to 8000 BP)—Archaeological sites from the Early Period are not very well represented in the southern San Joaquin Valley, partially due to periodic episodes of erosion and deposition that have removed or buried large segments of the Early Period landscape. Currently, the earliest evidence of human occupation in the region comes from fluted and basally thinned projectile points in the Tulare Lake basin at the Witt site (KIN-32). Hundreds of Late Pleistocene concave base points have been discovered from human occupation along the remnant shoreline of Tulare Lake in southern Kings County. Artifacts from this site include Clovis-like projectile points made of chert, chipped crescents, various scrapers, and other stone tools associated with the Fluted Point and/or Western Pluvial Lakes tradition. The Witt site also contained faunal bones from horse, bison, ground sloth, and the tusk of a mammoth or mastodon (Greenwood and Associates 2012). The bones, including some human bone, has been radiocarbon dated to 11,000 to 13,000 BP (Rosenthal et al. 2007).

Middle Period (8000 BP to 2500 BP)—The Middle Period is characterized by an increase in groundstone tools, including metates and manos. Middle Period site deposits include an abundance of expedient cobble-based pounding, chopping, scraping, and mulling tools, which reflect an increased dependence on vegetative foods that require processing. Archaeobotanical assemblages from foothill sites confirm that acorn and pine nuts were targeted food plants (Jones and Klar 2007; Rosenthal et al. 2007). However, lithic technology remained relatively unchanged from the Early Period, in which stone tools were very similar to the Western Pluvial Lakes Tradition (Greenwood and Associates 2012).

Late Period (2500 BP to Ethnohistoric Present)—The beginning of the Late Period corresponds with the onset of the Late Holocene environmental conditions, marked by an abrupt turn to cooler, wetter, and a more stable climate. Lakes that had dried or diminished during the later parts of the Middle Period returned to higher levels. Cultural diversity was more pronounced marked by artifact styles, contrasting burial positions, and other elements of material culture. People were buried in flexed positions more frequently, and burial goods were more numerous than those from the Middle Period (Rosenthal et al. 2007). Both the Olivella shell bead and bow-and-arrow technology made their first appearance in the area. There was also a greater reliance on ground stone tools, indicating an increased dependence on nuts, seeds, and acorns. Villages and smaller residential communities developed along the many streams of the foothills and along the river channels and sloughs of the valley bottom. Occupation sites were also larger, reflecting semi-sedentism (Greenwood and Associates 2012).

Ethnographic Setting

At the time of European contact, a number of tribal boundaries intersected in the area in which the project site is located. A number of tribal groups occupied the area in and surrounding the southern San Joaquin

Valley and the Tehachapi Mountains including the Chumash, the Southern Valley Yokut, the Kitanemuk, the Kawaiisu, and the Tataviam. These tribal groups are described in more detail below.

Chumash

The project area is in the region occupied by the Chumash before and at the time of European contact. King (1981) has divided the prehistory of the Chumash region into three periods: Early (8,000 to 3,350 years BP), Middle (3,350 to 800 years BP), and Late (800 to 150 years BP or approximately *anno domini* (AD) 1150 to 1800). The Early Period has been divided into three phases, X, Y, and Z. The X Phase is characterized by the use of large flake and core tools, milling stones, and handstones. Based on limited archaeological data, it appears that Phase X sites along the Santa Barbara Channel were located on crests of hills away from the ocean, but some Phase Y sites were located on knolls adjacent to sloughs. During Phase Z, sites were located on higher ground (King 1981).

During the Middle Period (3,350 to 800 years BP) increasing sedentism and increasing emphasis on marine subsistence along the Santa Barbara Channel is reflected by the appearance of coastal villages occupied during a large part of the year. The plank canoe, which made ocean fishing and travel to the Channel Islands safer and more efficient, came into use about 1,500 years BP. Use of the plank canoe also promoted trade and exchange between the mainland and the Channel Islands (Arnold 1987).

The full development of the Chumash, one of the most socially and economically complex hunting and gathering groups in North America, occurred during the Late Period (800 to 150 years BP or approximately AD 1150 to 1800) (Arnold 1987). At this time, there was a series of permanent and semipermanent villages with populations of 200 to 600 or more individuals along the Santa Barbara Channel and on the Channel Islands. The principal economic pursuits of the people of these villages were marine fishing and trading (Grant 1978).

When the Spanish arrived in AD 1769 the Chumash occupied the coast from Malibu Canyon to San Luis Obispo and inland as far as the western edge of the San Joaquin Valley). By 1804, most villages were abandoned as the Chumash were forced to move to the missions. Exposure to diseases introduced by Europeans soon began to decimate their population (Grant 1978). A typical example took place at La Purisima Mission, where the Chumash declined in number from approximately 1,520 in 1804 to 400 in 1832 (Greenwood 1978).

When Spanish authority was removed in 1821, many Chumash left the coastal area and settled in the interior. Those who remained were usually mistreated by Mexican, and later Anglo settlers. European-borne diseases continued to reduce the Chumash population. That, as well as intermarriage with the Spanish, Mexicans, and Anglos, resulted in near extinction of the full-blooded Chumash by 1900 (Grant 1978). In 1855, a reservation of 120 acres was given to the Chumash near Santa Ynez Mission. This small parcel was eventually reduced to 75 acres, the smallest Native American reservation in California. By the 1970s, only about 40 Chumash of mixed blood remained there. Other Chumash with no formal tribal affiliation may live outside the reservation (Grant 1978).

Southern Valley Yokut

At the time of European contact, most of the San Joaquin Valley and the foothills of the western slope of the Sierra Nevada were occupied by 40 or so groups classified together as the Yokuts (Silverstein 1978) with a Foothills division and a Valley division of language dialects. The Yokuts were recognized as having

three major subgroups: the Northern Valley, the Foothill, and the Southern Valley. Each of these ethnolinguistic groups was composed of autonomous, culturally, and linguistically related tribes or tribelets. Ethnographic evidence suggests that Kern County is located in the Southern Valley Yokuts territory. The Southern Valley Yokuts were divided into true tribes, with individual tribelets having their own name, dialect, and territory and there is no evidence to suggest that they practiced any formal religion (Gayton et al 1948).

Alfred Kroeber divided a Yokuts classification system into Valley Divisions and Foothill Divisions based on ethnographic lines, geographic habitat, and dialect (Kroeber 1925). Here, the Foothill Division's worldview and economy were influenced more by their Shoshonean neighbors than the Valley Division Yokuts. Later, William Wallace divided the Yokuts into three subgroups, Southern Valley, Northern Valley, and Foothill, and shifted the known tribelets among these divisions (Wallace 1978). The following is a review of ethnographic information associated with the Southern Valley Yokuts. The Southern Valley Yokuts occupied a rich environment with abundant water resources from the nearby sloughs, lake basins, and river systems. Swamps and tule marshes surrounded the waterways and teemed with wildlife, including aquatic mammals, fish, and waterfowl. Adjacent grasslands provided food for herds of elk, antelope, and (in the winter) deer. The regional flora was equally, if not more, diverse and was used as a main staple of the Yokuts diet. The Southern Valley Yokuts dietary base relied on a mixed strategy of fishing, waterfowl hunting, shellfish, and plant collecting, with less emphasis on large-game hunting. Important vegetal resources included cattail roots, grasses, nuts, seeds, tule, and bulbs. The resource-rich environment allowed for permanent village sites, which typically were occupied throughout the year.

Kitanemuk

The Kitanemuk occupied a territory that extended from the Tehachapi Mountains into the western end of the Antelope Valley. While most of their recorded villages were located in the Tehachapi Mountains, their settlement pattern is poorly understood. While the Kitanemuk maintained friendly relations with their other neighbors such as the Chumash, historic evidence indicates that their relationship with the Tataviam was generally hostile (Blackburn and Bean 1978). Like other Takic-speaking groups, such as the Serrano, Kitanemuk society had a patrilineal organization. Families grouped together into villages, which were headed by a team of “administrative elite” composed of a chief, messengers, and shamans. Kitanemuk subsistence was similar to their neighbors the Tataviam. Primary vegetable food sources included acorns, juniper berries, seeds, and yucca buds. Small game such as antelope and deer supplemented these foods.

Kawaiisu

The Kawaiisu, or Nuwa, occupied the Tehachapi Mountains in the southern toe of the Sierra Nevada Mountain range. As with most California Native American tribes, Kawaiisu villages were located near reliable and/or seasonal water sources. For, example, the Tomo-Kahni State Park is located in Tehachapi, and is a 2,000-3,000 year-old Kawaiisu winter village open to the public via guided tour. The Kawaiisu were socio-culturally organized along patrilineal lines, but unlike other California Native American tribes, they did not identify themselves with totemic moieties (Kroeber 1925). “Social ranking and prestige systems were certainly well developed” (Blackburn and Bean 1978). However, “Kawaiisu say outright that any rich man became a chief” (Kroeber 1925). The Tehachapi Mountains appears to have afforded the Kawaiisu a unique opportunity with respect to their location, situated between the western Mojave Desert (including the Antelope Valley) and the southern San Joaquin Valley. This location provided the Kawaiisu,

like the Kitanemuk, with facilitating extensive trade networks and ritual alliances with the coastal and interior groups (Blackburn and Bean 1978).

European American contact with the Kawaiisu may have occurred in 1776, when Father Francisco Garcés passed through Kawaiisu and Kitanemuk territory (Coues 1900). Likewise, it is believed the Kawaiisu, along with the Kitanemuk, may have been missionized to San Fernando, San Gabriel, and possibly San Buenaventura (Blackburn and Bean 1978). In 1853, the Kawaiisu were relocated to the Sebastian Indian Reservation, also known as the Tejon Reservation at the southern end of the San Joaquin Valley. Today, many Kawaiisu live in Kern County, including Tehachapi, and are actively documenting and relearning their language, as well as other aspects of their culture. For example, in 2007 the tribe acquired 501(c)(3) status for the Kawaiisu Language and Cultural Center, located in Tehachapi, and pursue ongoing cultural studies of their tribe with respect to language, arts, and history.

Tataviam

The project area is in the region occupied by the Tataviam before and at the time of European contact. The Tataviam lived primarily in the area along the upper Santa Clara River drainage. Occupation was chiefly within the foothills and mountains between the Mojave Desert and the inland valleys. “Tataviam” is a Kitanemuk phrase meaning “people of the south-facing slope,” and as the name suggests, the Tataviam occupied the south-facing slopes of the Sawmill Mountains (King and Blackburn 1978).

Ethnographic evidence indicates that the Tataviam resided in villages ranging in size from 10 to 15 to as many as 200 people. Large, small, and intermediate-sized villages were located near one another. According to two of Harrington’s informants, the Tataviam were the only people to live in the Antelope Valley (Harrington 1916, included in King and Blackburn 1978).

Mesquite flourished on the sun-dominated slopes of the Tataviam territory and appears to have been a staple in their diet. Exploitation of other plants and animals was the same as the Chumash and Gabrielino-Tongva, who resided to the west and east, respectively. Game consisted of small mammals, deer, and possibly antelope. Vegetal foods included yucca, buds, acorns, sage seeds, and berries (King and Blackburn 1978).

There is no data on Tataviam social organization that differentiates them from the neighboring Kitanemuk, Chumash, and Gabrielino-Tongva cultural groups. Intertribal marriages with the Kitanemuk and participation in Chumash ceremonies were observed during the post-mission period (King and Blackburn 1978).

The Tataviam language was possibly a Takic-influenced remnant of a language family otherwise unknown in Southern California. Archaeological data suggest that the Tataviam began to differentiate from other Southern California Takic speakers about 2,900 years ago. It appears that around that time, cremation as a mortuary practice began to predominate in those areas dominated by Takic speakers. By 1834, nearly all of the Tataviam had been baptized at the San Fernando Mission and had married members of other groups. By 1910, the last speaker of Tataviam had died (King and Blackburn 1978).

Regional Historic Background

The formalization of Spanish routes in California were established by Father Junípero Serra and Gaspar de Portolà in 1769, in what was known as the Portolà Expedition. Although the Portolà party were not the first Europeans nor the first people to pass through the region, it was their observations and discoveries that

formalized the routes and locations of the Mission System and facilitate trade and travel through California (Farquhar 1928). The route used by Portolà was further explored in detail by Lieutenant Colonel Juan Bautista de Anza and Father Pedro Font during the Anza Expedition that lasted from 1775-1776. The Anza Expedition was considered pivotal as it helped establish practical relationships with the natives, who at the time were revolting in San Diego, and help further explore and map Monterey and the San Francisco Bay Area (Hyslop 2019).

The region that would become San Joaquin Valley was periodically visited by Franciscan friars, scouting the area for mission sites, but it was a military expedition led by Gabriel Moraga in September and October of 1806. The expedition started in San Juan Bautista and to the San Joaquin Plain. Once there, Moraga traversed several tributaries that flow to the San Joaquin River and discovered and named the Merced River. Moraga additionally came upon the Tuolumne, Stanislaus, and Mokelumne Rivers. Moraga's Expedition took him from the foot of the Sierras and the Rancherias between Kings River and Kern River. In 1808, Moraga traveled to Stockton and headed east to scouting sites for future missions. Moraga's discoveries and mapping of the region contributed to the knowledge of the geography and ethnography of the area. This information served pivotal to Father Narciso Duran, Father Ramón Abella, and Lieutenant Luis Antonio Argüello, who followed the San Joaquin River at least as far as the Stockton Channel in 1817, meticulously mapping the area for future mission establishments (Kyle 2002; Farquhar 1928). The diary kept by Father Duran helped illustrate how the region appeared prior to colonization as well as initial contact with the Yokut people.

In 1821, Mexico overthrew Spanish rule and the monopoly that the missions had in the area began to decline. By 1833, the Mexican government passed the Secularization Act, and the missions, reorganized as parish churches and lost their vast land holdings. Following the Secularization Act, the Mexican government initially planned to redistribute the land to the Native Americans, however, they were instead redistributed to prominent citizens. The last of the mission land holdings were relinquished in 1845, which led the way for the large ranchos common to California in the mid-1800s.

California experienced a period of success with the establishment of the Ranchos, adopting the Spanish ranching traditions and focusing on the herding of cattle as well as adapting to the market trends of the time that included the trade of fur and pelts, however, the constant threat of Russian invasion, the illegal squatting of American immigrants and a growing threat of rebellion from the mission Indians prevented the region from achieving socio-political stability (Beck and Williams 1972). The growing tensions between Mexicans and American settlers led to the Bear Flag Revolt of 1846 led by U.S. Army Captain John C. Fremont and Ezekiel Merritt against Mexican General Mariano Vallejo who was attempting to bring aid to the Mexican governor of California in an attempt to suppress the growing wave of support for an American coup of California (National Parks Service [NPS] 2015). The rebellion concluded with the takeover of Sonoma, thus weakening the little control that Mexico had over Alta California and paving the way for the United States to seize control of the Pacific Coast shortly thereafter (NPS 2015).

By 1846, on the eve of the U.S.-Mexican War (1846 to 1848), the estimated population of California was 8,000 non-natives and 10,000 Native Americans. However, these estimates have been debated. Cook suggests the Native American population was 100,000 in 1850; the U.S. Census of 1880 reports the Native American population as 20,385 (Cook 1976).

History of the Project Vicinity

Kern County, located in the San Joaquin Valley, was incorporated on April 2, 1866, when parts of Los Angeles and Tulare counties were split due to the population growth in those communities. The County was named after the Kern River that flows throughout the area. Gold was discovered in 1864, and a town named Havilah was established. Ashbury Harpending, also known as “The Father of Kern County,” founded the town which is 8 miles south of what is now Bodfish (Brewer 2001). By 1866, Havilah was a booming town of mines, stamp mills, 13 saloons, the first county hospital, and the school district was established, as well as the first newspaper, the Havilah Courier, began publication. Havilah was the first county seat from 1866 to 1874, and eventually the governmental seat was moved to Bakersfield in February of 1874. Michael Erskine, Danial W. Walser, John M. Brite, Eli Smith, and Thomas Baker (Commission Chair) were appointed by the State Legislature as the Commission to organize the County. The Commission experienced difficulties in the first year as a result of misrepresentation of outlying areas within the County. However, the following year saw improvements as a result of the transportation system, Baker Toll Road, making its way up the hills between Bena and Walker Basin (Brewer 2001).

On April 26, 1875, Southern Pacific Railroad completed its construction of railroad tracks located east of the town of Caliente. By July 10, 1876, the railroad line that passes through the Tehachapi Mountains was completed (Brewer 2001). By 1890, a plant built by the Bakersfield Gas Company produced the first electric lighting in Bakersfield. Construction began for the first oil pipeline in the County in January 1901 and was completed in 1902. The pipeline extended from Kern River field, which is north of Bakersfield, to Point Richmond near the San Francisco Bay.

On June 5, 1917, Kern County was the first place where draft registration for World War I ensued, and where 7,150 men were enlisted in one day. The draftees left Kern County for duty on September 9, 1917. From the 1920s to 1940, Kern County experienced several changes such as the founding of the Kern County Woolgrower’s Association, the construction of the first steel derrick used for oil drilling, the 1933 cotton picker strike in the San Joaquin Valley, and the Dust Bowl migration (1935 to 1940) brought many to people to Kern County (Bakersfield 2021).

February and March 1942, Japanese Americans of Kern County were rounded up and placed in internment camps shortly after the bombing at Pearl Harbor. The internment camps were located at DiGiorgio farms at Arvin and Delano. In 1945, during World War II, German and Japanese prisoners were interned at camps near Shafter and Lamont to work on area farms. Post-war, Kern County experienced a major earthquake in August 1952, and the Isabella Dam was completed in 1953. The Delano Grape Strike of September 1965 originated with members of the Agricultural Workers Organizing Committee led by Larry Itliong and then was joined by the National Farmworkers Association led by Cesar Chavez, Richard Chavez, and Dolores Huerta. The strikers were demanding equal wages equivalent to the federal minimum wage. The two groups joined together to form the United Farm Workers of America, and the strike/boycott lasted for more than 5 years (Bakersfield 2021).

In the mid-1990s, the first African American woman, Irma Carson, was elected to the Bakersfield City Council; the 2000s saw the crash of the housing market that tripled the rate of foreclosures; and the 2010s saw layoffs due to low oil prices, which hit the County’s economy.

Existing Cultural Resources

Methods Used to Identify Known Cultural Resources

To evaluate the project’s potential effects on significant cultural resources, a cultural resources assessment for the project site was prepared, which included a records search, a Sacred Lands File (SLF) search conducted by the Native American Heritage Commission (NAHC), and a pedestrian survey. The methodology and results of the assessment are summarized below.

Southern San Joaquin Valley Information Center Records Search

On May 13, 2021, a records search for the project site and a 0.5-mile radius beyond the project boundaries, was conducted at the Southern San Joaquin Valley Information Center (SSJVIC) located at California State University, Bakersfield. The current inventories of the National Register of Historic Places (NRHP), the CRHR, the California Historical Landmarks (CHL) list, the California Points of Historical Interest (CPHI) list, and the California Built Environment Resource Directory (BERD) for Kern County were also reviewed to determine the existence of previously documented local historical resources. The records search results can be found in Appendix D.

The results of the records search indicate that one cultural resource (P-15-012209) has been recorded within 0.5-mile of the project site, none of which are within the project boundaries (**Table 4.5.2-1, *Previously Recorded Cultural Resources***). In addition, four area-specific survey reports are on file within 0.5-mile radius, one of which (KE-00254) partially addresses the proposed project site (**Table 4.5.2-2, *Previously Recorded Investigations***).

TABLE 4.5.2-1: PREVIOUSLY RECORDED CULTURAL RESOURCES

Primary No. (P-15-)	Permanent Trinomial (CA-KER-)	Resource Description	Date(s) Recorded	Eligibility Status
012209	6913-H	Prehistoric, Historic Site: Baldwin Ranch Site, AH02 Foundation/ structure pads, AH04 Privies/ dumps/ trash scatters, AP02 Lithic scatter, AP03 Ceramic scatter	2005	Not evaluated

TABLE 4.5.2-2: PREVIOUSLY RECORDED INVESTIGATIONS

Report No. (KE-)	Report Title	Author	Date(s) Recorded
KE-00254	An Archaeological Inventory of the Proposed PG&E Pipeline Corridor Segments: Newberry Springs to Hinkley 29.6 MI by 200 FT (717 AC), Kern County, California	Vickie L. Clay and Larry L. Hause	1990
KE-01067	Archaeological Investigation of the 1979 Systems Improvement Project for the Kern Delta Water District	Robert Schiffman	1979

TABLE 4.5.2-2: PREVIOUSLY RECORDED INVESTIGATIONS

Report No. (KE-)	Report Title	Author	Date(s) Recorded
KE-03585	Archaeological Investigations at CA-KER-6913/H for the Kern Delta Water District Water Banking and In Lieu Water Supply Project, Kern County, California	Wendy M. Nettles and Jay B. Lloyd	2007
KE-03726	Cultural Resources Surveys for the Kern Delta Water District Water Banking and In Lieu Water Supply Project, Kern County, California	Sandra S. Flint, Dennis P. McDougall, Kathleen Jerrigan, and Lisa Anderson	2005

P -15-012209: Baldwin Ranch—Prehistoric and Historic Site

The Baldwin Ranch site was recorded in 2005 as part of an intensive survey (Flint et al. 2005). The site contains both prehistoric and historic artifacts within five concentrations (Loci A-E). The prehistoric artifacts, such as a granite pestle/mano, are dispersed throughout the five concentrations, and the historic artifacts consist of a dump, glass and ceramic fragments, structures, and other artifacts scattered throughout the agricultural fields.

Historical Aerials

A review of 11 historic aerial photographs from 1952 to 2016 indicate that from the earliest aerial in 1952 until the present, the project site has never been developed and has been used continuously for agricultural purposes (**Appendix D**).

Sacred Lands File Search

On May 13, 2021, FCS sent a request to the NAHC in an effort to determine whether any sacred sites are listed on its SLF for the project site. A response was received on May 25, 2021, indicating that the SLF search failed to locate the presence of Native American cultural resources within the project site. The NAHC included a list of 24 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by implementation of the proposed project are addressed, a letter containing project information and requesting additional information was sent to each tribal representative on June 1, 2021.

A total of three responses were received. On June 1, 2021, the yak tityu yak tilhini-Northern Chumash Tribe had no comments on the proposed project and deferred to a more local tribe, and on June 2, 2021, the Quechan Tribe of the Fort Yuma Reservation had no additional information or comments. Additionally, the Xolon Salinan Tribe stated that the project site is not within their ancient territory.

To address the 24.76 acres to the east of the original project footprint, letters containing the updated project footprint and project description were sent to each of the tribal representatives on May 24, 2023. On May 25, 2023, a reply was received from the yak tityu tityu yak tilhini Northern Chumash Tribe, and on May 30, 2023, a reply was received from the Quechan Tribe of the Fort Yuma Reservation. Both tribes declined to consult and deferred to tribes closer to the project site. No other responses have been received to date.

On September 20, 2023, the County of Kern, in its role as Lead Agency, sent a request to the NAHC pursuant to SB-18 and AB-52, and also in an effort to determine whether any sacred sites are listed on its

SLF for the project site. A response was received on November 17, 2024, indicating that the SLF search failed to locate the presence of Native American cultural resources within the project site. The NAHC included an updated list of nine (9) tribal representatives available for consultation. On November 21, 2023, the County of Kern sent letters notifying the tribes of the Westside Industrial Project and inviting them to participate in consultation pursuant to AB-52.

A total of two (2) responses were received as of the date of publication. On November 30, 2023, both the Santa Ynez Band of Chumash Indians and the Yuhaaviatam of San Manuel Nation (formerly known as the San Manuel Band of Mission Indian) provided responses indicating they had no comments on the proposed project and requested no further consultation on the project.

Cultural Resources Surveys

On June 7, 2021, FCS Staff Archaeologists conducted a drive-by pedestrian survey along the borders of the project site, with overview photos taken at each corner of the site; however, they were unable to access the project site due to the overgrown agricultural field, which was filled with corn at the time. The boundary survey began on the northwestern corner of the project site, just south of the warehouse located outside of the project site, followed by the southwestern corner, southeastern corner, and finally, the northeastern corner. Overview photographs, as well as Munsell readings were taken at each corner, with the northwest and southwest corner soil consisting of grayish brown sandy silt (Munsell 5/2 10YR) and the southeast and northeast corner consisting of dark grayish brown sandy silt (Munsell 4/2 10YR).

On October 11, 2021, FCS Staff Archaeologists returned to the project site to finish the survey after being notified that the corn had been harvested. However, upon arrival it was observed that the project site had been replanted and was an active agricultural field. The survey was not possible, as observation and inspection of soil was compromised due to the inability to walk between the planted rows. In addition, sections of the project site were in the process of being irrigated, making access even more difficult. As such, FCS Staff Archaeologists conducted an additional survey of the perimeter of the project site and took overview photographs as well as additional Munsell readings from each corner of the project site. The northeast and southeast corners consisted of dark grayish brown clayish-silt (Munsell 10YR 3/2), the southwest corner consisted of grayish brown clayish-silt (Munsell 10YR 5/2) and the northwest corner consisted of dark brown silt (Munsell 10YR 3/3).

FCS Staff Archaeologists returned to the project site on May 3, 2023, to survey the approximately 93.74 acres (overall project is 99.28 acres which consists of 5.54 acres of right-of-way dedication) that includes the original project boundary (68.98 acres) and the area (24.76 acres) extended to the east of the original project site. The survey began on the southeastern corner of the project site, using east-west transects spaced at 15-meter intervals, whenever possible, and moving south. The entirety of the project area had recently been sowed and cropped, thus transects occurred between the ridges of each linear crop. The project area was relatively flat, and visibility of disturbed soil was at 100 percent. Overview photos were taken at each corner in addition to start/end of the odd numbered transects. Soil composition was made up of dark yellowish brown silty-sand (Munsell 10YR 4/4).

Survey conditions were documented using digital photographs and field notes. During the survey, FCS Staff Archaeologists examined all areas of the exposed ground surface for prehistoric artifacts (e.g., fire-affected rock, milling tools, flaked stone tools, tool-making debris, ceramics), soil discoloration and depressions that might indicate the presence of a cultural midden, faunal and human osteological remains, and features indicative of the former presence of structures or buildings (e.g., postholes, standing exterior

walls, foundations) or historic debris (e.g., glass, metal, ceramics). No historic, prehistoric cultural resources, or raw materials commonly used in the manufacture of tools (e.g., obsidian, Franciscan chert, etc.) were found over the course of either boundary survey.

Potential for Unknown Buried Cultural Resources

In addition to the pedestrian survey, the potential for yet identified cultural resources in the project vicinity was reviewed against geologic and topographic geographic information system data for the general area and information from other nearby projects. The proposed project was evaluated against a set of criteria originally identified by a geoarchaeological overview of the Central Valley that was prepared for the California Department of Transportation (Caltrans) Districts 6 and 9 (Meyer et al. 2010). This study mapped the “archaeological sensitivity,” or potential to support the presence of buried prehistoric archaeological deposits, throughout the Central Valley based on geology and environmental parameters including distance to water and landform slope. The methodology used in the study is applicable to other parts of California, and generally concluded that sites consisting of flat, Holocene-era deposits in proximity to water resources had a moderate to high probability of containing subsurface archaeological deposits when compared to earlier Pleistocene deposits situated on slopes or further away from drainages, lakes, and rivers.

The project site is situated on flat terrain, and according to the geological map of A.R. Smith (1964), the surface of the project site consists entirely of recent Holocene fan deposits (Qf) and stream channel deposits (Qsc). Applying the criteria set forth above, all Holocene-era deposits have the potential to contain archaeological deposits, which increases with the ease of the slope and proximity to water resources. The project site is situated immediately adjacent to a natural water source, and its slope, composition, and proximity to known prehistoric/historic sites would suggest a high potential for unanticipated buried cultural resources to be impacted by project construction.

4.5.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

California Register of Historical Resources

Created in 1992 and implemented in 1998, the CRHR is “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 CHLs numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the CPHI program, identified as significant in historic 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 determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. It is associated with the lives of persons important in our past.
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.
4. It has yielded, or may be likely to yield, information important in history or prehistory.

Furthermore, under Public Resources Code 5024.1, Title 14 California Code of Regulations, 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 farming, often lack integrity because they have been directly damaged or moved 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 in prehistory or history (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

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 State Historical Resources Commission; 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:

1. 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);
2. It is associated with an individual or group having a profound influence on the history of California; or
3. 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

CPHI 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. CPHI designated after December 1997 and recommended by the State Historical Resources Commission are also listed in the CRHR. No historical 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 CPHI, a resource must meet at least one of the following criteria:

1. It is the first, last, only, or most significant of its type within the local geographic region (city or county);
2. It is associated with an individual or group having a profound influence on the history of the local area; or
3. 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.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the State and is codified at Public Resources Code Section 21000 *et seq.* CEQA requires lead agencies to determine whether a proposed project would have a significant effect on the environment, including significant effects on historical or archaeological resources.

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. CEQA Guidelines (Title 14 CCR § 15064.5) recognize that a historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR; (2) a resource included in a local register of historical resources, as defined in Public Resources Code Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of Public Resources Code Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript that 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. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be a historical resource as defined in Public Resources Code Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 and CEQA Guidelines Section 15064.5 apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired) in the significance of a historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines §§ 15064.5(b)(1) and 15064.5(b)(4)).

If an archaeological site does not meet the historical resource criteria contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Section 21083, which is a unique archaeological resource. As defined in CEQA Guidelines Section 21083.2 a “unique” archaeological resource is an archaeological artifact, object, or site, for which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a 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 prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in CEQA Guidelines Section 21083.2, then the site is to be treated in accordance with the provisions of CEQA Guidelines Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (CEQA Guidelines § 21083.2(b)). If preservation in place is not feasible, mitigation measures shall be required.

CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines § 15064.5(c)(4)).

Native American Heritage Commission

Public Resources Code Section 5097.91 established the NAHC, the duties of which include inventorying places of religious or social significance to Native Americans and identifying known graves and cemeteries of Native Americans on private lands. Public Resources Code Section 5097.98 specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from the 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 related to “Native American graves, cemeteries, and sacred places maintained by the NAHC.” 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 (DPR), 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 California Native American tribe and a State or local agency.”

California 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

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.

Local

Metropolitan Bakersfield General Plan

Chapter II—Land Use Element

Policies

- Policy 5** Provide for streetscape improvements, landscape, and signage which uniquely identify major and/or historic residential neighborhoods (I-8).
- Policy 7** Provide for the retention of historic residential neighborhoods as identified in the Historical Resources Element if adopted by the City of Bakersfield (I-1, I-6, I-8).
- Policy 27** Require that new commercial uses maintain visual compatibility with single-family residences in areas designated for historic preservation (I-1, I-6, I-8).
- Policy 72** Promote the creation of both residential and commercial historic districts, and encourage the upgrading of historic structures (I-1, I-6, I-8).
- 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 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 section describes the existing cultural resources and potential effects that may result from project implementation on the site and its surrounding area. The descriptions and analysis in this section are based on information provided by the NAHC, a records search conducted at the SSJVIC, archival research, and a pedestrian survey, as presented in the Phase I CRA prepared for the proposed project (FCS 2023c).

Thresholds of Significance

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

A project would have a significant adverse effect on cultural resources if it would:

- a. Cause a substantial adverse change in the significance of a historical resource, as defined in CEQA Guidelines Section 15064.5
- b. Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to CEQA Guidelines Section 15064.5 or
- c. Disturb any human remains, including those interred outside of dedicated cemeteries.

All of the above impact thresholds are addressed in the Project Impacts section below. Impacts to tribal cultural resources have been addressed in **Section 4.18, *Tribal Cultural Resources***, of this Draft EIR.

Project Impacts

Impact 4.5-1: The project would cause a substantial adverse change in the significance of a historical resource, as defined in CEQA Guidelines 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 the SSJVIC identified one prehistoric/historic cultural resource (P-15-012209) within the 0.5-mile search radius; however, no prehistoric or historic cultural resources were identified within the project boundaries. No additional historic resources were encountered during the pedestrian field survey and evaluation. Accordingly, the proposed project would not have an adverse impact on historic era built environment resources.

While 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 or building 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 During implementation of the project, in the event that a paleontological resource is found, the project contractor shall cease ground-disturbing activities within 50 feet of the find. A qualified paleontologist shall be obtained to evaluate the significance of the resource(s) and recommend appropriate treatment measures. Any fossils encountered and recovered shall be catalogued and donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County. Accompanying notes, maps, and photographs shall also be filed at the repository.

MM 4.5-3 Prior to the issuance of grading or building 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:

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.

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.

Consistent with Mitigation Measure 4.5-1 (above) 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.

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):

- A. a sufficient avoidance buffer to protect the resource until data recovery and/or removal is completed;
- B. sample excavation;
- C. surface artifact collection;
- D. site documentation; and,
- E. 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.
- F. 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

With implementation of **Mitigation Measures MM 4.5-1 through MM 4.5-3**, impacts would be less than significant.

Impact 4.5-2: The project would cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5.

Records search results from the SSJVIC for the project boundaries identified one archaeological resource (P-15-012209) within the 0.5-mile search radius. Additionally, the SLF search conducted by the NAHC came back negative for TCRs within the project site. On June 7, 2021, and October 11, 2021, pedestrian surveys were attempted, however, access to the project site was limited because the survey area was an active agricultural field, thus visibility for archaeological resources was limited to the project perimeter. The inability to access the site increases the possibility of resources being encountered during project construction. However, on May 3, 2023, FCS Staff Archaeologists returned to the project site to survey the approximately 93.74 acres, which includes the original project boundary (68.98 acres) and the area (24.76 acres) extended to the east of the original project site. No archaeological resources were identified during the pedestrian survey.

For this reason, implementation of **Mitigation Measures MM 4.5-1** through **MM 4.5-3** would reduce potential impacts to archaeological resources to a less than significant level.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.5-1** through **MM 4.5-3** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.5-1** through **MM 4.5-3**, impacts would be less than significant.

Impact 4.5-3: The project would disturb human remains, including those interred outside of formal cemeteries.

While 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 Public Resources Code Sections 5097.94 and Section 5097.98 must be followed. Implementation of **Mitigation Measure MM 4.5-4**, 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 4.5-4 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 CEQA 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 (NAHC), in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by Assembly Bill [AB] 2641). The NAHC shall designate a Most Likely Descendant (MLD) 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 MLD 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

With implementation of **Mitigation Measure MM 4.5-4**, impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

This analysis evaluates whether the impacts of the proposed project together with the impacts of cumulative development, could result in a significant impact to prehistoric and historic cultural resources. This analysis then considers whether incremental contribution of impacts associated with the implementation of the proposed project would be significant. Both conditions must apply for a project's cumulative effects to rise to the level of a significant impact.

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 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. Moreover, the proposed 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 **Mitigation Measures MM 4.5-1** through **MM 4.5-4** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.5-1** through **MM 4.5-4**, impacts would be less than significant.

Section 4.6

Energy

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4.6.1 Introduction

This energy section of the Draft EIR analyzes the energy implications of the project, focusing on the following three energy resources: electricity, natural gas, and transportation-related energy (petroleum-based fuels). This section includes a summary of the project’s anticipated energy needs and conservation measures. Information in this section is primarily based on the *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FirstCarbon Solutions [FCS] 2023a) provided in Appendix B of this Draft EIR. In addition, the information found herein, as well as other aspects of the project’s environmental-related energy impacts, are discussed in greater detail elsewhere in this Draft EIR, including in Chapter 3, *Project Description*, Section 4.3, *Air Quality*, and Section 4.8, *Greenhouse Gas Emissions*, of this Draft EIR.

This section provides the content and analysis required by Public Resources Code Section 21100(b)(3) and described in California Environmental Quality Act (*CEQA*) *Guidelines* Appendix F (AEP 2023). Public Resources Code Section 21100(b) and *CEQA Guidelines* Section 15126.4 require that an EIR identify mitigation measures to minimize a project’s significant effects on the environment, including, but not limited to, 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. Appendix F further 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 asking if a project could result in wasteful energy resource consumption during project construction or operation and whether the 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 man-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 ten 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.

According to the United States Energy Information Administration (EIA), California used approximately 203,384 GWh of electricity in 2022 (EIA 2023a). Electricity usage in California for differing land uses varies substantially by the type of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Because of the state's energy efficiency building standards and efficiency and conservation programs, California's electricity use per capita in the residential sector is lower than any other state except Hawaii (EIA 2018a).

Retail electric service in Kern County is split between Pacific Gas and Electric (PG&E) and Southern California Edison (SCE). PG&E's retail service is concentrated in western Kern County while SCE serves the east County area. Refer to the interactive map of PG&E's retail electric service territory (PG&E 2023) and SCE's retail electric service territory (SCE 2020).

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.

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).

According to the EIA, California used approximately 2,056,267 million cubic feet of natural gas in 2022 (EIA 2023b).

Southern California Gas Company (SoCalGas) is the natural gas provider in the project vicinity (SoCalGas 2007).

Transportation

California used approximately 20.0 million barrels per day of petroleum in 2022 (EIA 2023c). By sector, transportation uses utilize approximately 68 percent of the state's petroleum, followed by 26 percent from industrial, and 6 percent from commercial, residential, and electric power uses (EIA 2023c). 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. California has implemented policies to improve vehicle efficiency and to support use of alternative transportation. Over the past several years, California has implemented various policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and greenhouse gas (GHG) from the transportation sector, and reduce vehicle miles traveled (VMT) (CEC 2016a). The California Energy Commission (CEC) predicts that the demand for gasoline will continue to decline over future years, and there will be an increase in the use of

alternative fuels (CEC 2016b). According to the California Air Resources Board’s (ARB) EMFAC2017 Web Database that estimates the emissions inventory of on-road mobile sources in California, Kern County on-road transportation sources consumed approximately 454 million gallons of gasoline and 308 million gallons of diesel fuel in 2018 (ARB 2023a).

4.6.3 Regulatory Setting

Federal

Corporate Average Fuel 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. The National Highway Traffic Safety Administration (NHTSA) and United States Environmental Protection Agency (EPA) jointly administer the CAFE standards (NHTSA 2023). The U.S. Congress has specified that CAFE standards must be set at the “maximum feasible level” with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.

Fuel efficiency standards for medium- and heavy-duty trucks have been jointly developed by EPA and NHTSA. The Phase 1 heavy-duty truck standards apply to combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles for model years 2014 through 2018. The Phase 1 heavy-duty truck standards result in a reduction in fuel consumption from 6 to 23 percent over the 2010 baseline, depending on the vehicle type. The EPA and NHTSA have also adopted the Phase 2 heavy-duty truck standards, which cover model years 2021 through 2027. The Phase 2 heavy-duty truck standards require the phase-in of a 5 to 25 percent reduction in fuel consumption over the 2017 baseline, depending on the compliance year and vehicle type (EPA and NHTSA 2016).

Energy Independence and Security Act of 2007

Signed into law in December 2007, the Energy Independence and Security Act was passed to increase the production of clean renewable fuels; increase the efficiency of products, buildings, and vehicles; improve the energy performance of the federal government; and increase U.S. energy security, develop renewable fuel production, and improve vehicle fuel economy. The act included the first increase in fuel economy standards for passenger cars since 1975, and also included a new energy grant program for use by local governments in implemented energy efficiency initiatives, as well as a variety of green building incentives and programs.

State

Senate Bill 1389

Senate Bill (SB) 1389 (Public Resources Code 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 and 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 (Public Resources Code Section 25301(a)). The California Energy Commission's Integrated Energy Policy Report, undated annually, provides the results of the CEC's assessments of a variety of energy issues facing California including energy efficiency, strategies related to data for improved decisions in the Existing Buildings Energy Efficiency Action Plan, building energy efficiency standards, the impact of drought on California's energy system, achieving 50 percent renewables by 2030, the California Energy Demand Forecast, the Natural Gas Outlook, the Transportation Energy Demand Forecast, Alternative and Renewable Fuel and Vehicle Technology Program benefits updates, update on electricity infrastructure in Southern California, an update on trends in California's sources of crude oil, an update on California's nuclear plants, and other energy issues.

California's Renewables Portfolio Standard

First established in 2002 under SB 1078, California's Renewables Portfolio Standards (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030 (California Public Utilities Commission [CPUC] 2019).

In 2018, SB 100 further increased California's RPS and required retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and that ARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045.

The CEC and CPUC share responsibility for overseeing the implementation of California's RPS program. The CEC administers the program for publicly owned utilities. Similarly, the CPUC administers the RPS programs for the investor-owned utilities, like SCE. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy. Refer to Section 4.8, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

California Assembly Bill 1493 (AB 1493, Pavley)

In response to the transportation sector accounting for more than half of California's CO₂ emissions, Assembly Bill (AB) 1493 (commonly referred to as ARB's Pavley regulations), enacted in 2002, requires the ARB to set GHG emission standards for new passenger vehicles, light-duty trucks, and other vehicles manufactured in and after 2009 whose primary use is non-commercial personal transportation. Phase I of the legislation established standards for model years 2009–2016 and Phase II established standards for model years 2017–2025 (ARB 2017). Refer to Section 4.8, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding this regulation.

California Health and Safety Code (HSC), Division 25.5/California Global Warming Solutions Act of 2006

In 2006, the California State Legislature adopted AB 32 (codified in the California HSC, Division 25.5–California Global Warming Solutions Act of 2006), which focuses on reducing GHG emissions in California to 1990 levels by 2020. Under HSC Division 25.5, ARB has the primary responsibility for

reducing the State's GHG emissions; however, AB 32 also tasked the CEC and the CPUC with providing information, analysis, and recommendations to ARB regarding strategies to reduce GHG emissions in the energy sector.

In 2016, SB 32 and its companion bill AB 197 amended HSC Division 25.5, established a new climate pollution reduction target of 40 percent below 1990 levels by 2030, and included provisions to ensure that the benefits of state climate policies reach into disadvantaged communities. Refer to Section 4.8, *Greenhouse Gas Emissions*, of this Draft EIR for additional details regarding these regulations.

2022 Scoping Plan

The 2022 Scoping Plan addresses the target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. It lays out a plan based on bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the State's natural and working lands and using a variety of mechanical approaches. The major element of this unprecedented transformation is the aggressive reduction of fossil fuels wherever they are currently used in California, building on, and accelerating, carbon reduction programs that have been in place for a decade and a half. The 2022 Scoping Plan reaffirms and clarifies the role of local governments in achieving the State's climate goals, particularly as it concerns the approval of new land use development projects and their environmental review under CEQA. The plan also identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030.

Low Carbon Fuel Standard

The Low Carbon Fuel Standard (LCFS), established in 2007 through Executive Order S-1-07 and administered by ARB, requires producers of petroleum-based fuels to reduce the carbon intensity of their products, starting with 0.25 percent in 2011 and culminating in a 10 percent total reduction in 2020. Petroleum importers, refiners and wholesalers can either 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.

California Air Resources Board

ARB's Advanced Clean Car Program

The Advanced Clean Cars emissions-control program was approved by ARB in 2012 and is closely associated with the Pavley regulations. The program requires a greater number of zero-emission vehicle models for years 2015 through 2025 to control smog, soot and GHG emissions. This program includes the Low-Emissions Vehicle (LEV) regulations to reduce criteria pollutants and GHG emissions from light- and medium-duty vehicles; and the Zero-Emission Vehicle regulations (ZEV) to require manufacturers to produce an increasing number of pure ZEVs (meaning battery and fuel cell electric vehicles) with the provision to produce plug-in hybrid electric vehicles (PHEV) between 2018 and 2025.

Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling

In 2004, ARB adopted an Airborne Toxic Control Measure to Limit Diesel-Fueled Commercial Motor Vehicle Idling in order to reduce public exposure to diesel particulate matter emissions (Title 13 California

Code of Regulations [CCR] § 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.

Regulation to Reduce Emissions of Diesel Particulate Matter, Oxides of Nitrogen and other Criteria Pollutants, from In-Use Heavy-Duty Diesel-Fueled Vehicles.

In addition to limiting exhaust from idling trucks, in 2008, ARB approved the Truck and Bus regulation to reduce nitrogen oxides (NO_x) and particulate matter (PM₁₀ and PM_{2.5}) emissions from existing diesel vehicles operating in California (13 CCR, Section 2025). The phased regulation aims to reduce emissions by requiring installation of diesel soot filters and encouraging the retirement, replacement, or retrofit of older engines with newer emission-controlled models. The phasing of this regulation has full implementation by 2023.

ARB also promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The In-Use Off-Road Diesel-Fueled Fleets regulation adopted by ARB on July 26, 2007, aims to reduce emissions by 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). The compliance schedule requires full implementation by 2023 in all equipment for large and medium fleets and by 2028 for small fleets.

While the goals of these measures are primarily to reduce public health impacts from diesel emissions, compliance with the regulation has shown an increase in energy savings in the form of reduced fuel consumption from more fuel-efficient engines.

California Environmental Quality Act

In accordance with CEQA and Appendix F, Energy Conservation, of the *CEQA Guidelines*, and to assure that energy implications are considered in project decisions, EIRs are required to include a discussion of the potential significant energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy. *CEQA Guidelines* Appendix F provides a list of energy-related topics to be analyzed in the EIR. In addition, while not described or required as significance thresholds for determining the significance of impacts related to energy, Appendix F provides the following topics for consideration in the discussion of energy use in an EIR, to the extent the topics are applicable or relevant to the project:

- The project's energy requirements and its energy use efficiencies by amount and fuel type for each stage of the project including construction, operation, maintenance, and/or 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 its overall use of efficient transportation alternatives.

In late 2018, the California Natural Resources Agency finalized updates to the *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 energy criteria for the analysis of wasteful energy consumption and conflicts with state or local energy efficiency plans (California Natural Resources Agency, 2018). Appendix F did not describe or require significance thresholds for determining the significance of impacts related to energy. According to the updated Appendix G Checklist, Issue VI. Energy, a project would have a significant impact on energy and energy resources if it would:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
2. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Local

Kern County General Plan

The Kern County General Plan (Kern County 2009) contains policies, goals, and implementation measures that are relevant to energy; however, these goals, policies, and implementation measures are more general in nature and not specific to development such as the proposed project. Specifically, the Kern County General Plan focuses on goals that protect the County's energy resources and encourage orderly and safe energy development. The proposed project is not involved in energy development.

Metropolitan Bakersfield General Plan (Unincorporated Area)

The policies and implementation measures in the Metropolitan Bakersfield General Plan related to energy efficiency or consumption of energy applicable to the project are provided below. The Metropolitan Bakersfield General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development, such as the proposed project. These measures are not listed below, but as stated in Chapter 2, *Introduction*, all policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan are incorporated by reference.

Chapter 5: Conservation/Air Quality

Goals

Goal 3 Reduce the amount of vehicular emissions in the planning area.

Policies

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 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 28** Encourage the use of “teleconferencing” and other state-of-the-art technology as a means of reducing daily business-related traffic.
- Policy 29** Encourage the use of alternative fuel and low or zero-emission vehicles.

Implementation Measures

- Measure 1** Amend as needed the City and County Zoning Ordinances to:
- a. Incorporate the provisions of the Air Quality Management Plan.
 - b. Incorporate measures identified under the Transportation System Management Plan for Metropolitan Bakersfield.
 - c. Limit intrusions into the pedestrian right-of-way.
 - d. Require air quality design considerations indicated in policies 22 and 25.
- 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

Methodology

This analysis addresses the proposed project's potential energy usage, including electricity, natural gas, and transportation fuel. Energy consumption during both construction and operation is assessed. Specific analysis methodologies are discussed below. The assessment presented herein is based in part on the *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FCS 2023) prepared for the project. A full copy of the report is provided in Appendix B of this Draft EIR.

Construction

No electricity or natural gas facilities are currently located on the project site. No natural gas pipelines are located within the project site. Electric power for construction and operations would be brought to the site through a new PG&E substation constructed on-site for the proposed project. Natural gas would not be required for the project.

Electricity is not expected to be consumed in large quantities during project construction, as construction equipment and vehicles are not electric (diesel- or gas-powered). Although electrical service will be established to serve construction, the amount of electricity that will be used is likely to be small. The project site is located at the southern end of the San Joaquin Valley within unincorporated Kern County and would be served by the California Water Service (CalWater), Bakersfield District. Natural gas is not expected to be consumed during project construction (i.e., no natural gas-powered equipment or vehicles).

The analysis of energy usage during construction is limited to transportation fuels (i.e., petroleum). Regarding transportation-related fuel consumption during construction, the project construction equipment and haul trucks would likely be diesel-fueled, while the construction worker commute vehicles would primarily be gasoline-fueled.

The project proponent proposes to implement use of zero-emissions material handling equipment (e.g., forklifts, indoor material handling equipment, etc.) on-site for daily warehouse and business operations. To ensure enforceability, the project developer/facility owner would disclose this requirement to all tenants/business entities prior to the signing of any lease agreement. In addition, the limitation of using only electric-powered off-road equipment would be included in all leasing agreements. See **Section 4.8, Greenhouse Gas Emissions**, of this EIR for further discussion.

Construction activity durations, off-road equipment, horsepower ratings, hours of use, and load factors were used to calculate construction-related fuel use and are provided in Appendix B of this Draft EIR.

Operations

The proposed project would consume energy as part of building operations and transportation activities. The warehouse would be exclusively truck-served, meaning it would be utilized by delivery trucks. Similar to construction equipment and worker trips, fuel consumption for operation was estimated by using the horsepower, number of equipment/vehicles, days used per year, hours, load factor, and horsepower hours to arrive at the gallons of gasoline or diesel used; see Appendix B of this Draft EIR for details regarding

fuel consumption calculations. The proposed warehouse building, yard trucks and forklifts would be electrified. The proposed project would not use natural gas for operations and also would not create demand for natural gas in other locations. The proposed project would comply with the applicable requirements of the California 2022 Building Energy Efficiency Standards (CALGreen) and would include rooftop photovoltaics (PV) solar facilities. Cold storage is not proposed as part of the proposed project.

The proposed project would also have an on-site electrical substation and a pre-packaged wastewater treatment plant to meet its utility requirements. The wastewater treatment plant would be designed to treat 54,900 gallons per day and include an odor control facility, and a small building for electrical and operations and maintenance equipment. The siting, design, construction, operation, maintenance, and monitoring of the wastewater system would comply with the requirements of the applicable Regional Water Quality Control Board (RWQCB) Basin Plan.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist identify, per *CEQA Guidelines* Appendix G, a project would have a significant impact on energy and energy resources if it would:

1. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or
2. Conflict 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 potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.

A discussion of the proposed project's anticipated energy usage is summarized below and presented as part of the *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FCS 2023a) provided in Appendix B of this Draft EIR.

Construction

The project construction schedule was assumed to begin in July 2024 and conclude in September 2025. If the construction schedule moves to later years, construction emissions would likely decrease because of improvements in technology and more stringent regulatory requirements as older, less efficient equipment is replaced by newer and cleaner equipment. The proposed project would require site preparation, grading, building construction, architectural coating, and paving. The construction phase would require energy for the manufacture and transportation of building materials, preparation of the site (e.g., site clearing and grading), and the actual construction of the building. Petroleum-based fuels such as diesel fuel and gasoline would be the primary sources of energy for these tasks.

The types of on-site equipment used during construction of the proposed project could include gasoline- and diesel-powered construction and transportation equipment, including trucks, graders, tractors, and

cranes. Main site construction equipment is estimated to consume a total of 109,276 gallons of diesel fuel over the entire construction duration (Appendix B).

Fuel use associated with construction vehicle trips generated by the proposed project was also estimated; trips include construction worker trips, haul truck trips for material transport, and vendor trips for construction material deliveries. Fuel use from these vehicles traveling to the project site was based on (1) the projected number of trips the proposed project would generate during construction, (2) average trip distances by trip type, and (3) fuel efficiencies estimated in the ARB EMFAC mobile source emission model. The specific parameters used to estimate fuel usage are included in Appendix B. In total, the proposed project is estimated to generate 1,926,189 VMT and 136,478 gallons of combined gasoline and diesel for vehicle travel during construction.

The overall construction schedule and process is already designed to be efficient in order to avoid excess monetary costs. For example, equipment and fuel are not typically used wastefully due to the added expense associated with renting the equipment, maintaining it, and fueling it. Therefore, the opportunities for future efficiency gains during construction are limited. Therefore, it is anticipated that the construction phase of the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy. Construction-related energy impacts would be less than significant.

Operation

The proposed project would consume energy as part of building operations and transportation activities. Project energy consumption is summarized in **Table 4.6-1, Estimated Annual Project Energy Consumption in 2026**.

TABLE 4.6-1: ESTIMATED ANNUAL PROJECT ENERGY CONSUMPTION IN 2026

Energy Consumption Activity	Annual Consumption
Electricity Consumption	9,009,866 kWh
Building Natural Gas Consumption	0 kBTU
Operational Fuel Consumption-Natural Gas	7,616 gallons
Operational Fuel Consumption-Gasoline	723,186 gallons
Operational Fuel Consumption–Diesel	696,091 gallons
Operational Fuel Consumption–Electricity	436,088 kWh

Notes:

kWh = kilowatt-hour

kBTU = kilo-British Thermal Unit

Source: FirstCarbon Solutions (FCS) 2023.

Operation of the proposed warehouse would consume an estimated 9,009,866 of electricity on an annual basis. Natural gas would not be utilized as a building fuel. The proposed project's building would be designed and constructed in accordance with the latest adopted energy efficiency standards, which are based on the State's Building Energy Efficiency Standards. These 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. Implementation of **Mitigation Measure MM 4.3-3** (see **Section 4.3, Air Quality**) would require the project proponent continuously comply with energy-use

reduction measures when using construction-related equipment and vehicles. Additionally, Mitigation Measure MM 4.6-1 described below would require the project incorporate energy efficient building design standards 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 1,419,278 gallons of gasoline and diesel annually and would involve activities and travel routes typical of a warehouse-type project. ZEV passenger vehicles represent approximately 5.0 percent of the light-duty passenger vehicle fleet based on EMFAC 2021 projection for 2026. Electricity consumption associated with this was estimated as 436,088 kWh in 2026 for the proposed project.

These fossil fuels consumed by the project annually would decrease and shift to electricity consumption as the on-road passenger vehicle and heavy-duty truck fleets shift from gasoline and diesel to zero-emission electric vehicles. The ARB Mobile Source Strategy Vision Model predicts on-road populations of 14 percent ZEV light-duty vehicles by 2026, 28 percent by 2030 and 50 percent by 2035 (ARB 2023b). The ARB heavy-duty on-road META tool calculates MS projections for the on-road population of ZEV class 8 heavy-duty trucks in San Joaquin Valley which are projected as 2 percent of the heavy-duty truck (HHD) population in 2026, 7 percent in 2030, 23 percent in 2035, and 61 percent by 2045 (ARB 2023c). Class-8 day cab tractor trailer trucks used in priority fleets following the ARB Advanced Clean Fleet Rule and following the Group 2 Milestone Option will be 50 percent ZEV by 2035 and 100 percent ZEV by 2045 (ARB 2022). **Table 4.6-2, Project Operational Energy Usage** shows the estimated annual energy consumption in 2030 and 2045.

TABLE 4.6-2: PROJECT OPERATIONAL ENERGY USAGE FROM TRANSPORTATION FUEL CONSUMPTION

Energy Consumption	2026	2030	2045	Percent Increase/Decrease between 2026 and 2045
Gasoline (gallons)	723,186	515,768	107,452	- 85.1 percent
Diesel (gallons)	696,091	314,977	136,490	- 80.4 percent
Natural Gas (gallons)	7,616	376,714	163,243	2,043 percent
Electricity (kWh)	436,088	2,963,716	11,453,493	2,526 percent

Notes: Based on Statewide estimates for light-duty ZEVs and San Joaquin Valley Heavy-Duty Vehicle ZEVs based on 2020 Mobile Source Strategy (MSS) Estimates.

kWh = kilowatt-hour

kBTU = kilo-British Thermal Unit

Source: FirstCarbon Solutions (FCS) 2023.

Thus, transportation fuel consumption would not be wasteful, inefficient, or unnecessary. Impacts would be less than significant.

Mitigation Measures

Implement **Mitigation Measure MM 4.3-3** (see **Section 4.3, Air Quality**).

MM 4.6-1: Prior to the issuance of grading or building permits, the project proponent shall provide a report including a summary of all energy efficient building design standards incorporated into the project design to reduce the level of energy consumption of the project. The following list is non-inclusive of potential design standards that may be considered:

- a. 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. Encourage green building measures that contribute to reducing energy use to 25 percent less than Title 24 requirements;
- b. Solar water heating to provide non-industrial water heating;
- c. Ground mounted solar photovoltaics arrays to provide a portion of the estimated electrical demand for the proposed project;
- d. Commercial buildings shall be designed to meet LEED® certification standards;
- e. Roofs on all buildings shall be of a light color to reduce heat generation;
- f. Portions of parking lots (drive aisles) may be paved with concrete versus asphalt to reduce initial solar reflectance;
- g. Depending on the usage, portions of parking lots may be covered, and the parking lot roofs contain solar photovoltaics;
- h. Use LED lighting fixtures on all indoor and exterior site lighting;
- i. Use LED lighting fixtures on all public streets and site lighting;
- j. Encourage the utilization of electric forklifts and other material handling vehicles to reduce usage of fossil fuels;
- k. Design circulation features into the public street improvements to include bus stops and/or other public transportation;
- l. Include bicycle friendly features to reduce vehicle miles traveled and to encourage non-vehicular transportation;
- m. Encourage the usage of high efficiency electric motors for industrial uses.

MM 4.6-2: Prior to the issuance of grading or 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 electrical vehicle capable spaces with electrical vehicle supply equipment.

Level of Significance

With implementation of **Mitigation Measures MM 4.3-3** (see **Section 4.3, Air Quality**), **MM 4.6-1**, and **MM 4.6-2**, impacts would be less than significant.

Impact 4.6-2: The project would conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

At the time of this writing, 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 developing long-term compensation for wildlife habitat to name a few.

Although the proposed project is within the jurisdictional boundaries of the Metropolitan Bakersfield General Plan, thereby superseding the provisions set forth in the Kern County General Plan, the proposed project design nonetheless conforms to, and operation would comply with, State Building Energy Efficiency Standards, appliance efficiency regulations, and green building standards. Conformance to the State requirements would substantially reduce the energy consumption from fossil fuels and shift consumption to renewable sources. Mitigation measures may require design features such as incorporating passive solar design, heat island mitigation, energy efficient low voltage lighting, and encouraging electric trucks, forklifts, and other material handling vehicles to name a few.

The proposed project would be served with electricity provided by PG&E. In 2021, PG&E obtained 47.7 percent of its electricity from renewable energy sources (CEC 2023). PG&E also offers a 50 percent and 100 percent solar choice that sources 70.9 and 93.9 percent of its power mix from eligible renewable energy sources respectively, as well as a Green Saver option that sources 89.9 percent of its power mix from eligible renewable energy sources (CEC 2023). The utility would be required to meet the future objective of 60 percent of electricity from renewable energy sources by 2030. The proposed warehouse building would be designed in accordance with Title 24, California's Energy Efficiency Standards for Nonresidential Buildings. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., heating, ventilation, and air conditioning [HVAC] and water heating systems), and indoor and outdoor lighting. The incorporation of the Title 24 standards into the design of the proposed project would ensure that the proposed project would not result in the use of energy in a wasteful manner.

The proposed project would comply with existing State energy standards and with energy conservation policies contained in the General Plan. As such, the proposed project would not conflict with State or local renewable or energy efficiency objectives. Impacts would be less than significant.

The proposed project's compliance with Title 24 standards and other applicable regulations would ensure that the proposed project would not conflict with any of the General Plan energy conservation policies related to the proposed project's building, mechanical systems, or indoor and outdoor lighting. Therefore, impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

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 of the cumulative energy analysis is the portion of PG&E's service area that covers incorporated and Kern County. Cumulative projects considered as part of this cumulative analysis include the project, other cumulative projects identified in **Chapter 3, Project Description, Table 3-5, Cumulative Projects List** of this Draft EIR, and other past, present, and reasonably foreseeable future projects within the PG&E service area that covers the incorporated and unincorporated areas of Kern County.

Concerning electricity and natural gas, cumulative projects would be required to comply with applicable provisions of Title 24 Building Energy Efficiency Standards and CALGreen. Specifically, the buildings and other improvements that would be constructed as part of the various cumulative projects would be required to be designed in accordance with Title 24, California's Energy Efficiency Standards for Residential and Nonresidential Buildings as applicable. These standards include minimum energy efficiency requirements related to building envelope, mechanical systems (e.g., HVAC and water heating systems), and indoor and outdoor lighting. Future cumulative development would also be required to meet even more stringent energy efficiency requirements through local and Statewide policy, such as Title 24, Part 6, which would require, for example, that newly constructed residential homes include on-site photovoltaic solar systems, with some exceptions. Furthermore, PG&E—which supplies electricity to 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 percent carbon-free electricity generation by 2045. Electricity would also be consumed during construction of the cumulative projects from the use of construction trailers and any electrically driven equipment, vehicles, or tools. Electricity consumed during construction of the cumulative projects would also be subject to the renewable electricity generation requirements established by SB 100, as PG&E would be the anticipated electricity supplier for the cumulative project areas. The incorporation of these regulations into the design of the cumulative projects would ensure that they would not result in the inefficient, unnecessary, or wasteful consumption of electricity or natural gas, and thus they would not have a significant cumulative impact.

Similarly, the proposed project's energy use would be limited to that which is necessary for the construction and operation of the proposed project, as required through the implementation of **Mitigation Measures MM 4.3-3** (see **Section 4.3, Air Quality**), **MM 4.6-1**, and **MM 4.6-2**. As discussed above, the proposed 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. In addition, the proposed project would be built as all-electric and would not utilize natural gas during construction or operations. As such, the proposed 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 California Code of Regulations Title 13, Sections 2449(d)(3) and 2485, that limit idling from both on-road and off-road diesel-powered equipment and are enforced by the ARB. Additionally, various federal and State regulations, including the LCFS, Pavley Clean Car Standards, and LEV Program, 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 proposed project would consume vehicle

fuel during both construction and operation. As previously discussed, the proposed project would also be required to use fuels which conform to various federal and State regulations, such as the LCFS, Pavley Clean Car Standards, and LEV Program. In addition, the proposed project would consume fuels in an amount necessary to construct and operate the proposed project and would not consume excessive amounts of fuel beyond what is necessary in the interest of avoiding unnecessary construction or operation costs. Therefore, the proposed 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 proposed 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

Implement **Mitigation Measures MM 4.3-3**, (see **Section 4.3, *Air Quality***), **MM 4.6-1**, and **MM 4.6-2**.

Level of Significance

With implementation of **Mitigation Measures MM 4.3-3**, **MM 4.6-1**, and **MM 4.6-2** impacts would be less than significant.

Section 4.7
Geology and Soils

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4.7.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the geologic and soil characteristics of the project site, potential geology and soils impacts associated with construction and operation of the proposed project, and mitigation measures that would reduce these impacts, if applicable. The analysis in this section is based, in part, on the project-specific Phase I Environmental Site Assessment (Geosyntec Consultants 2023), the Geotechnical Evaluation (Ninyo & Moore 2023), and the Paleontological Records Search (Finger 2021). These reports are provided in Appendix E of this Draft EIR.

4.7.2 Environmental Setting

Regional Geologic Setting

The project site is located on a relatively flat portion of what is known as the Great Valley geomorphic province. The Great Valley is an approximately 50 mile wide and 400 mile long alluvial plain in Central California. The San Joaquin Valley constitutes the southern portion of the Great Valley and is drained by the San Joaquin River (California Geological Survey [CGS] 2002). The Great Valley generally consists of Quaternary sedimentary deposits (CGS 2002b), characterized by thick alluvial deposits in a wide and long structural trough bounded by the Sierra Nevada and Coast Range Mountain ranges.

In the Bakersfield area, the Kern River is the major hydrologic feature. The Kern River brings water from Lake Isabella reservoir through the Kern River Canyon and has created the large Kern River fan, which covers approximately 300 square miles of the San Joaquin Valley (Bakersfield Metropolitan General Plan 2002). There are numerous geologic features within the San Joaquin Valley, the most prominent being the San Andreas Fault, which is the master fault of an intricate fault network that extends approximately 650 miles from a submarine intersection with the Mendocino escarpment in the north to the Imperial Valley in the south, acting as a boundary between the North American Plate and the Pacific Plate (Bakersfield Metropolitan General Plan 2002). The southern end of the San Joaquin Valley is a historically seismically active area as it is bordered by several major active fault systems including the San Andreas, Breckenridge, Kern Canyon, Garlock, and White Wolf faults. The nearest Earthquake Fault Zone as delineated by the Alquist-Priolo Earthquake Fault Zoning Act, is associated with the White Wolf Fault and is approximately 13 miles south of the project site (United States Geological Survey [USGS] 2023).

Paleontological Setting

Paleontological resources are the mineralized (fossilized) remains of prehistoric plants and animals and the mineralized impressions (trace fossils) left as indirect evidence of the form and activity of such organisms. These resources are located within sedimentary rocks or alluvium and are nonrenewable.

Paleontological resources are the fossilized remains of plants and animals, including vertebrates (animals with backbones), invertebrates (animals without backbones), microscopic plants and animals (microfossils), and trace fossils/ichnofossils (i.e., footprints, burrows, etc.). They are valuable, nonrenewable, scientific resources used to document the existence of extinct life forms and to reconstruct the environments in which they lived. Fossils can be used to determine the relative ages of the depositional layers in which they occur and of the geologic events that created those deposits. The age, abundance, and distribution of fossils depend on the geologic formation in which they occur and the topography of the area in which they are exposed.

Based on the significance definitions of the Society of Vertebrate Paleontology (SVP), all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon. Therefore, every vertebrate fossil found has the potential to provide significant new information. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

Geological mapping indicates that the region in which the project site is located is underlain by Quaternary-aged alluvial fan deposits, specifically Pleistocene to Holocene marine and non-marine sedimentary rocks consisting of alluvium, lake, and terrace deposits (CGS 2002b, CGS 2010) (**Figure 4.7-1, Regional Geology**).

Existing Paleontological Resources

The Paleontological Records Search (Finger 2021) included a review of published geologic maps, a paleontological locality search using the University of California Museum of Paleontology (UCMP) online database, and a review of published paleontological reports to determine whether the geologic units present within the project area typically yield paleontological resources. As geologic formations and units can be exposed over large geographic areas but contain similar lithologies and fossils, the literature review and fossil locality searches extend to 0.5-mile outside the project area. As mentioned above, the geologic map and literature review indicates the project site is located solely on recent Holocene (Qf) fan deposits. There are no older units mapped in the vicinity.

No paleontological localities were reported from the project site based on review of published geologic maps, and the UCMP also determined no paleontological localities were found in the project area. The project site is located on Holocene (Qf) fan deposits which are too young to be fossiliferous and thus, have no paleontological potential or sensitivity.

Local Geologic Setting

Local Geology

The project site is relatively flat and is located approximately 330 feet above mean sea level (AMSL) with a gradually decreasing topographic gradient to the south. Project site soils consist of Bakersfield fine sandy loam and Vineland loamy sand. Bakersfield fine sandy loam is listed as “Prime Farmland if irrigated,” while Vineland loamy sand is listed as “not Prime Farmland” (UC Davis California Soil Resource Lab 2023).

The Geotechnical Evaluation for the project site included the collection of site-specific data through geotechnical borings and laboratory analysis of collected soil samples (Ninyo & Moore 2023). Materials encountered during subsurface soil exploration from depths up to 51.5 feet below ground surface (BGS) consisted of asphalt concrete, fill, and alluvium/alluvial fan deposits (Ninyo & Moore 2023). The alluvium generally consisted of interbedded, moist, loose to very dense, sandy silt, clayey sand, silty sand, poorly graded sand with silt, poorly graded sand, and moist, firm to very stiff, lean clay.

Groundwater was not encountered in the borings at the time of drilling; however, groundwater levels do have seasonal variations. According to a review of well data for the area, one well located approximately 2.2 miles southeast of the project site had a depth to water ranging from 22.5 to 34 feet BGS, and a well located 3.2 miles northeast of the site had groundwater ranging from 138 to 145 feet BGS (Ninyo & Moore 2023). Fluctuations in groundwater levels may have occurred due to variations in precipitation, ground surface topography, subsurface stratification, irrigation, groundwater pumping, and other factors that were not evident at the time of evaluation.

Fault Rupture

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. Fault rupture can occur along the identified traces of active faults (California Department of Conservation [DOC] 2023). Active faults are defined as faults with evidence of displacement in the last 11,000 years (CGS 2018). As described above and shown in **Figure 4.7-2, Regional Fault Zones**, there are no active faults that intersect the project site nor are any located within the immediate vicinity. The nearest Earthquake Fault Zone as delineated by the Alquist-Priolo Earthquake Fault Zoning Act, is associated with the White Wolf Fault and is approximately 13 miles south of the project site (United States Geological Survey [USGS] 2023).

Ground Shaking

Faults located within the project site vicinity have the potential to cause ground shaking on 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). According to the Bakersfield Metropolitan General Plan Figure VIII-1, the major active faults in the area include the White Wolf Fault (13 miles away), the Pond Poso Fault (19 miles away), the San Andreas Fault (over 25 miles away), the Breckenridge-Kern Canyon Fault (26 miles away), and the Garlock Fault (36 miles away). Seismic events on other active faults of the region would also have the potential to cause ground shaking at the project site. **Table 4.7-1, Historic Earthquakes in Project Area** shows some of the significant historical earthquakes that have occurred in the region and their magnitudes.

TABLE 4.7-1: HISTORIC EARTHQUAKES IN PROJECT AREA

Earthquake (Year)	Approximate Distance to Project Site (miles)	Earthquake Magnitude
Mojave (1992)	43	5.7
Wheeler Ridge (1993)	13.7	5.2
Kern County (1952)	13	7.5
Tejon Ranch (1988)	25.8	5.4
Ridgecrest (2019)	75	7.1, 6.4, and 5.4

Source: Southern California Earthquake Data Center (SCEDC) 2023.

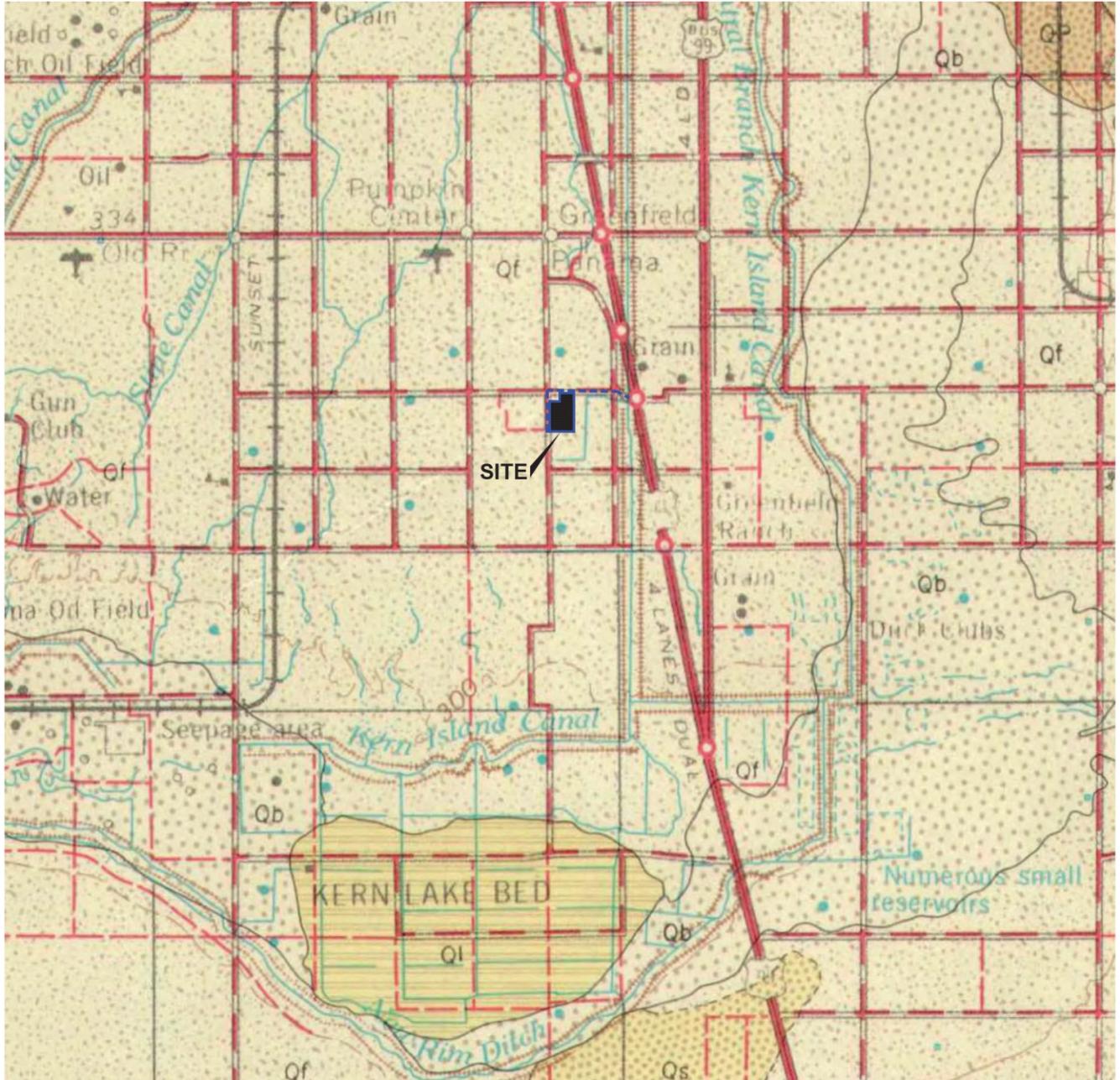
Landslides

The project site is relatively flat with no substantive slopes and low landslide potential.

Liquefaction and Lateral Spreading

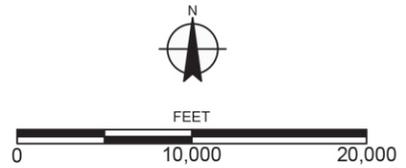
Liquefaction is a type of ground failure resulting from the generation of high porewater pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils exist below groundwater. Liquefaction potential is considered highest when saturated loose soils are found within 50 feet of ground surface. According to the Metropolitan Bakersfield General Plan, areas of high groundwater are at a greater risk for liquefaction of soils during a major earthquake.

Groundwater was not encountered on the project site, according to borings up to 51.3 feet BGS during the Geotechnical Investigation (Ninyo & Moore 2023). High groundwater is known to exist at depths of 5 to 15 feet below the ground surface in areas of the Lamont quadrangle, located south of the City of Bakersfield generally between Brundage Lane and Di Giorgio Road. The project site is located approximately 1.30 miles southwest of the terminus of Di Giorgio Road and, according to groundwater data collected from monitoring wells for the Francisco Navarro Property cleanup case, located approximately 3 miles northeast of the project site, groundwater flows to the west and is present at a depth of 141 to 145 feet BGS (Geosyntec Consultants 2023). Nevertheless, based on the anticipated depth of groundwater and subsurface conditions on-site, the potential for liquefaction at the project site is considered low (Ninyo & Moore 2023). Other geologic hazards related to liquefaction, such as lateral spreading and dynamic settlement, are not design considerations for the project and therefore also considered low (Ninyo & Moore 2023).



LEGEND

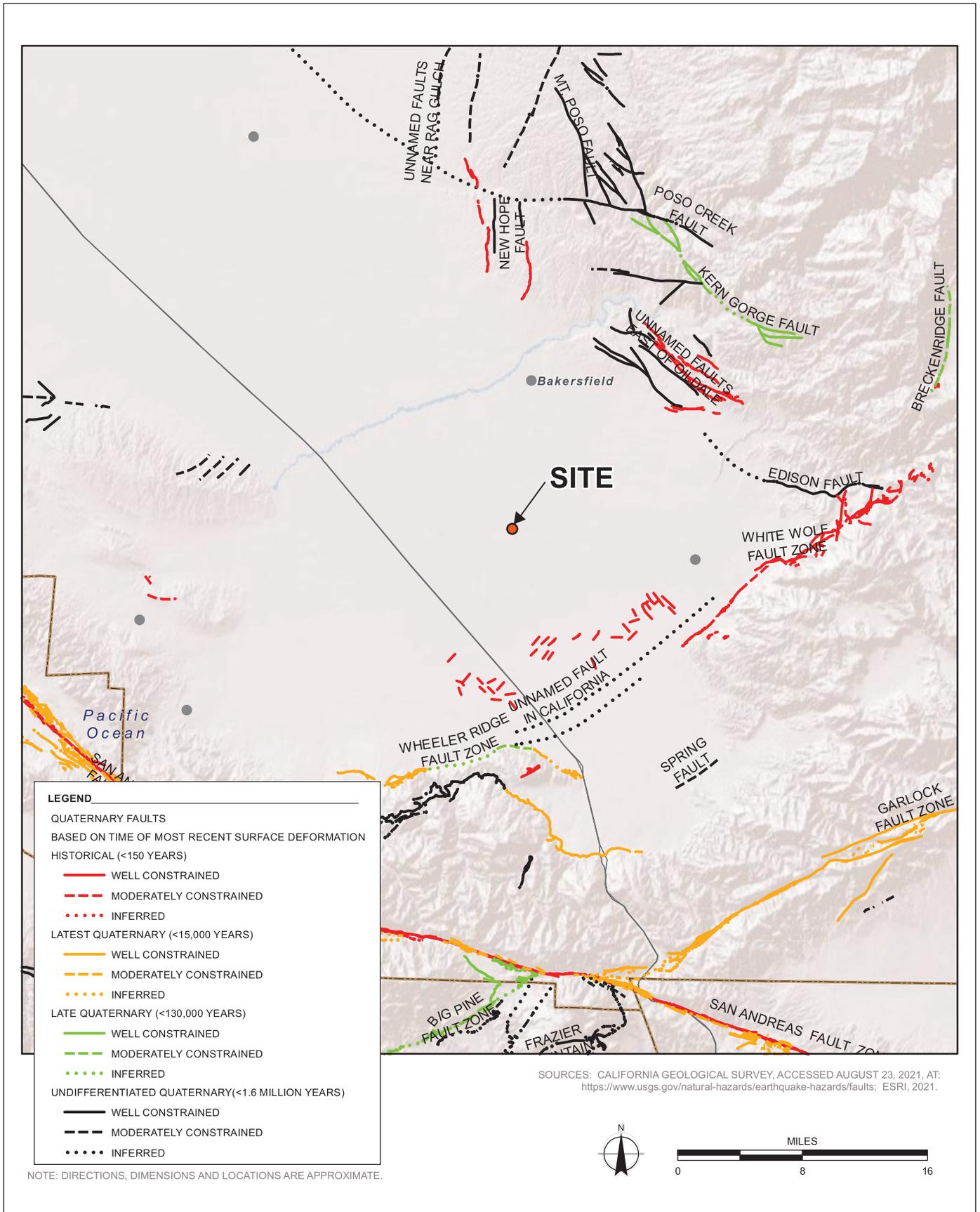
- | | | | |
|---|---------------------------------|---|------------------------------|
|  | FAN DEPOSITS (QUATERNARY) |  | GEOLOGIC CONTACT |
|  | DUNE SAND DEPOSITS (QUATERNARY) |  | FAULT |
|  | LAKE DEPOSITS (QUATERNARY) |  | PROPOSED STREET IMPROVEMENTS |



Source: Ninyo & Moore, 10/2023.

**Figure 4.7-1
Regional Geology**

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Source: Ninyo & Moore, 10/2023.

Figure 4.7-2
 Regional Fault Zones

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Expansive Soils

Expansive soils contain clay types capable of absorbing water in a manner that results in volumetric changes. Over long-term periods of cyclical changes in water content, these volumetric changes can cause damage to foundations, retaining walls, sidewalks, and roadways. As noted above, project site soils consist of Bakersfield fine sandy loam and Vineland loamy sand which are primarily sandy soils, with a very low risk for expansion (UC Davis California Soil Resource Lab 2023). Thus, it is unlikely that on-site soils would be susceptible to expansion.

Soil Erosion

Soil erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind, and subsurface water flow. Excessive soil erosion can eventually lead to damage of building foundations and roadways. In general, areas that are most susceptible to erosion are those that would be exposed during the construction phase when earthwork activities disturb soils and require stockpiling. Typically, the soil erosion potential is reduced once the soil is graded and covered with concrete, structures, asphalt, or slope protection; however, changes in drainage patterns can also cause areas to be susceptible to the effects of erosion. There are many factors contributing to soil erosion. High soil erodibility contributes to high erosion rates. Soils containing high silt content have the highest soil erodibility since they are easily detached, tend to crust and produce high rates of runoff. Coarse textured soils, or sandy soils, are easily detached but typically do not produce a lot of runoff, so they have low soil erodibility.

Two different soil types have been mapped for the project site according to the UC Davis Soil Resource Lab, including the Bakersfield fine sandy loam and Vineland loamy sand (UC Davis Soil Resource Lab 2023). These soil units have 0 to 1 percent slopes and are found to have a low susceptibility for water erosion. Susceptibility for wind erosion for these same units were also considered low to moderate. Since the project site currently has vegetation cover, erosion potential is considered low.

Subsidence

Subsidence is the sinking of the ground surface; there are four types of subsidence currently occurring within Kern County. Tectonic subsidence refers to the long-term, slow sinking of the land surface. Subsidence can also occur naturally when moisture-deficient soils are exposed to water, which causes collapse. Subsidence has also been caused by human activities including the extraction of oil and gas and the withdrawal of groundwater. Specific areas identified as experiencing subsidence within the County include some areas of the San Joaquin Valley between Merced and north of Bakersfield and a large area south of Bakersfield that does not extend to the project site (Farr, Jones, Liu 2016). Additionally, the San Joaquin Valley, where the project site is located, has been subject to groundwater pumping with some areas experiencing as much as 28 feet of historical ground subsidence (Ninyo & Moore 2023).

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. These soils are distributed throughout the southwestern United States, specifically in areas of young alluvial fans, debris

flow sediments, and loess (wind-blown sediment) deposits. Surface soils on the project site include alluvium that has been used for agricultural use and are unlikely to be susceptible to collapse.

4.7.3 Regulatory Setting

Geologic resources and geotechnical hazards are governed primarily by local jurisdictions. The conservation elements and seismic safety elements of city and county general plans contain policies for the protection of geologic features and avoidance of hazards.

The 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 establishes a specific process for environmental impact analysis and public review. In addition, the project applicant must comply with other applicable federal, 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 Federal Clean Water Act (CWA) (33 United States Code [USC] 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 requires 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. Such discharges are regulated by the National Pollutant Discharge Elimination System (NPDES) permit process (CWA Section 402). Projects that disturb 1 acre or more are required to obtain NPDES coverage under the NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Construction General Permit), Order No. 2009-0009-DWQ. The Construction General Permit requires the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which includes Best Management Practices (BMPs) to regulate stormwater runoff, including measures to prevent soil erosion. Requirements of the CWA and associated SWPPP are described in further detail 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. The NEHRP designates the Federal Emergency Management Agency as the lead agency of the program and assigns it several planning, coordinating, and reporting responsibilities. Programs under NEHRP help

inform and guide planning and building code requirements such as emergency evacuation responsibilities and seismic code standards such as those to which the proposed project would be required to adhere.

Paleontological Resources

A variety of federal statutes specifically address paleontological resources. They are generally applicable to a project if that project includes federally-owned or federally-managed lands or involves a federal agency license, permit, approval, or funding. The first of these is the Antiquities Act of 1906 (54 USC 320301-320303 and 18 USC 1866(b)), which calls for 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 of 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 also 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

The Alquist-Priolo Earthquake Fault Zoning Act of 1972

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 (formerly the Special Studies Zoning Act) regulates the development and construction of buildings intended for human occupancy to avoid hazards associated with surface fault rupture. In accordance with this law, the CGS maps active faults and designates Earthquake Fault Zones along mapped faults. The Fault Zoning Act groups faults into categories (i.e., active, potentially active, or inactive). Historic and Holocene faults are considered active, Late Quaternary and Quaternary faults are considered potentially active, and pre-Quaternary faults are considered inactive. These classifications are qualified by conditions. For example, a fault must be shown to be “sufficiently active” and “well defined” through 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, such as an operations and maintenance building, is subject to review under the

Alquist-Priolo Earthquake Fault Zoning Act, and any structures for human occupancy must be located at least 50 feet from any active fault.

The Seismic Hazards Mapping Act of 1990

In accordance with Public Resources Code Chapter 7.8, Division 2, the CGS is directed to delineate seismic hazard zones. The purpose of the Seismic Hazards Mapping Act is to reduce the threat to public health and safety and 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 CGS in their land use planning and permitting processes. In accordance with the Seismic Hazards Mapping Act, site-specific geotechnical investigations must be performed prior to permitting most urban development projects within seismic hazard zones.

California Building Standards Code

The California Building Standards Code (CBC), which is codified in Title 24 of the California Code of Regulations, Part 2, was promulgated to safeguard the public health, safety, and general welfare by establishing minimum standards related to structural strength, means of egress facilities, and general stability of buildings. The purpose of the CBC is to regulate and control the design, construction, quality of materials, use/occupancy, location, and maintenance of all buildings and structures within its jurisdiction. Title 24 is administered by the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under State law, all building standards must be centralized in Title 24 or they are not enforceable. The provisions of the CBC apply to the construction, alteration, movement, replacement, location, and demolition of every building or structure, or any appurtenances connected or attached to such buildings or structures throughout California.

The 2022 edition of the CBC is based on the 2021 International Building Code (IBC) published by the International Code Council. The code is updated triennially, and 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 in supporting 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 of the structure, which the structure then must be designed to withstand. The prescribed lateral forces are generally smaller than the actual peak forces that would be 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 kind of 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 take into account 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. CBC Chapter 18 covers the requirements of geotechnical investigations (Section 1803), excavation, grading, and fills (Section 1804), load-bearing of soils (1806), as well as foundations (Section 1808), shallow foundations (Section 1809), and deep foundations (Section 1810). 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 ground stabilization, selecting appropriate foundation type 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 also describes 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.*

Public Resources Code Section 5097.5 and Section 30244

Other State requirements for paleontological resource management are included in Public Resources Code Section 5097.5 and Section 30244. These statutes prohibit the removal of any paleontological site or feature from public lands without permission of the jurisdictional agency, define the removal of paleontological sites or features as a misdemeanor, and require reasonable mitigation of adverse impacts to paleontological resources from developments on public (State, County, City, District) lands.

State Water Resources Control Board, Stormwater General Construction Permit

The five-member State Water Resources Control Board (State Water Board) allocates water rights, adjudicates water right disputes, develops Statewide water protection plans, establishes water quality standards, and guides the nine Regional Water Quality and Control Boards (RWQCBs) in the major

watersheds of the State. The joint authority of water allocation and water quality protection enables the State Water Board 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) (State Water Board Order No. 2012-0006-DWQ, NPDES No. CAS000002). The General Construction Permit 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.

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 site. The SWPPP must list the BMPs the discharger will use to protect stormwater runoff and the placement of those BMPs. Additionally, 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. Additionally, the State Water Board 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 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 are also the City of Bakersfield adopted Sphere of Influence (SOI). The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for geology and soils applicable to the proposed project are provided below.

Chapter V: Conservation Element

Soils and Agriculture

Goal

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

- Capability Class I 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.

Policies

- 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 Measures

- Measure 7** Coordinate with the Soil Conservation Service to provide technical assistance on improving or preserving soil conditions.

Chapter VIII: Safety Element**Seismic Safety*****Goal***

- 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.

Policy

- 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.
- Policy 13** Determine 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.

Implementation Measures

- 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.
- Measure 11** Review the current code enforcement procedures for concrete tilt-up and composite pre-stressed concrete construction for consistency with effective principles of seismic design, and revise as appropriate to maintain seismic integrity of new construction.

Measure 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 Fault Study Zone.

Measure 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.

Kern County Code of Building Regulations (Title 17 of the Ordinance Code of Kern County)

Chapter 17.08 Building Code

All construction in Kern 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 CBC, 2022 Edition, with some modifications and amendments. Kern County has made local modifications, additions and amendments to the codes as allowed, which were determined reasonably necessary because of local climatic, geological, or topographical conditions which are prescribed in Title 17 of the Ordinance Code. The County's Code of Building Regulations applies to grading, new building construction and to the installation of new mechanical, plumbing, and electrical systems.

Chapter 17.28: Kern County Grading Code

The purpose of the Kern County Grading Code (Chapter 17.28, Building Code, of the Kern County Code of Regulations) 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. 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 erosion. This control may consist of effective planting. 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 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.

Section 17.28.170: Grading Inspection

- A. 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 17.28.170I for engineered grading and as required by the building official for regular grading.
- B. 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.
- C. 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.
- D. 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 whether 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.
- E. 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.
- F. 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.
- G. 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.
- H. 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 Quality Control Plan

Each of the nine RWQCBs adopts a Water Quality Control Plan which 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.

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 to identify whether stormwater runoff has the potential of discharging 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 discharge 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 preparation of a SWPPP. Should stormwater runoff not drain to waters of the United States (e.g., 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:

1. All stormwater is retained on-site and no stormwater 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 stormwater 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 stormwater runoff is not retained on-site, and the discharge is to a water of the United States. Therefore, a Notice of Intent (NOI) must be filed with the State Water 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 and 5 acres and an Erosivity Waiver was granted by the State Water Board. BMPs must be implemented.

4.7.4 Impacts and Mitigation Measures

Methodology

Potentially significant impacts associated with the project site were identified based on a review of available literature, the Phase I Environmental Site Assessment (Phase I ESA) (Geosyntec Consultants 2023), the Geotechnical Evaluation (Ninyo & Moore 2023), and the Paleontological Records Search (Finger 2021) which present findings, conclusions, and recommendations concerning development of the proposed project based on an engineering analysis of geotechnical properties of the subsurface conditions and

evaluation of the underlying soils, as well as available data, including the Metropolitan Bakersfield General Plan. This information is provided in Appendix E of this Draft EIR.

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, period of time, or geographic region, would be a significant environmental impact. Direct impacts to 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 result in the destruction of 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 the implementation of paleontological mitigation.

The CEQA threshold of significance for a significant impact to 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 which underlie the non-sensitive unit are also affected.

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 geology and soils.

A project would have a significant adverse effect on geology and soils if it would:

- a. 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; or
 - Landslides.
- b. Result in substantial soil erosion or the loss of topsoil;
- c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse;
- d. 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;
- e. 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; or
- f. 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 fault rupture is ground deformation that occurs along the surface trace of the causative fault during an earthquake. The proposed project would introduce people to the project site (construction workers and on-site workers during operation) and could thus expose people and structures to seismic risks. While the project site is located in the highly seismic Southern California region within the influence of multiple faults, the project site is not located within or within close proximity to a State of California Alquist-Priolo Earthquake Fault Zone. As previously discussed, the nearest Earthquake Fault Zone as delineated by the Alquist-Priolo Earthquake Fault Zoning Act, is associated with the White Wolf Fault and is approximately 13 miles south of the project site (USGS 2023). Because of the distance of this fault, fault rupture would not likely occur.

In addition, construction of the proposed project would be subject to all applicable ordinances of the Kern County Building Code (Chapter 17.08). Kern County has adopted the CBC 2022 Edition (California Code of Regulations [CCR] Title 24), which incorporates substantially the same requirements as the IBC, 2021 Edition, with some modifications and amendments. Adherence to all applicable regulations would mitigate any potential fault rupture-related impacts associated with the proposed project. Based on the absence of any known active faults within or within close proximity to the project site, and the proposed 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

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 site is in a highly seismic region that could experience one or more substantive seismic events in the future. Damage to the warehouse facility, or other ancillary facilities and injury to workers could result depending on the magnitude, distance to the source, and duration of shaking. Therefore, there is potential for substantial adverse effects, including the risk of loss, injury, or death as a result of strong seismic ground shaking.

Prior to the issuance of grading permits, implementation of **Mitigation Measure MM 4.7-1** requires that the project proponent retain a California registered Professional Engineer to approve the final grading

earthwork and foundation plans prior to construction. At the direction of the retained engineer, the project applicant would be required to design project infrastructure to withstand substantial ground shaking in accordance with all applicable ordinances of the Kern County Building Code (Chapter 17.08) and the current CBC, consistent with the requirements of **Mitigation Measure MM 4.7-3**. The CBC contains seismic safety provisions with the aim of preventing building collapse and structural damage during an earthquake. In addition, the proposed project would incorporate all recommendations from the Geotechnical Evaluation within project construction and design plans, as outlined in **Mitigation Measure MM 4.7-2**, which requires that a California Geotechnical Engineer be retained by the project applicant to design the proposed facilities to withstand probable seismically induced ground shaking.

Implementation of **Mitigation Measures MM 4.7-3** through **MM 4.7-7** listed below would ensure 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 seismic 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, foundation specifications, and protection measures for buried metal. The final structural 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 on-site construction supervisor and the Kern County Building Inspector to ensure compliance. A copy of the approved design would be submitted to the Kern County Planning and Natural Resources Department. Further, the project would be constructed in accordance with all applicable codes, which require property line and public roadway setbacks that would protect any on-site employees from potential hazards associated with the facility that could result from an earthquake. With compliance with the Kern County Building Code, the 2022 CBC, and implementation of **Mitigation Measures MM 4.7-1** through **MM 4.7-7**, 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, sign, and stamp the final grading earthwork and foundation plans prior to construction.

MM 4.7-2 Prior to the issuance of building or 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 siting 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 or grading 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 issuance 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 prior to issuance of grading permits.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.7-1** through **MM 4.7-7**, impacts would be less than significant.

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.

The proximity of existing active faults presents the potential for seismic ground shaking, which could result in damage to structures and associated improvements if underlain by subsurface materials susceptible to liquefaction. Should liquefiable materials be present at the project site, damage to the warehouse and distribution facility and other ancillary facilities could result, and construction workers and employees could be exposed to potential adverse effects.

According to the Geotechnical Evaluation, groundwater was not encountered at the time of the site investigation and drilling. Data available from the State Water Board's Geotracker website indicates that groundwater at a monitoring well located approximately 2.2 miles southeast of the project site range from approximately 22.5 feet to 34 feet BGS (Ninyo & Moore 2023). In general, saturated unconsolidated sediments would need to be present within the upper 50 feet of ground surface to be considered potentially liquefiable. However, the project site is not mapped for liquefaction hazards according to the California Office of Emergency Services (Cal/OES) GS Seismic Hazard Program (DOC 2023b) and groundwater was not encountered in borings up to 51.3 feet during the Geotechnical Evaluation (Ninyo & Moore 2023). According to the Geotechnical Evaluation, liquefaction-related seismic hazards are not design considerations for the project. Impacts would be less than significant.

The project applicant would be required to evaluate the potential for liquefaction in accordance with all applicable ordinances of the Kern County Building Code (Chapter 17.04) and the CBC in a final design-level geotechnical report. The Kern County Engineering, Surveying and Permit Services Department requires the submittal of three sets of plans to the building department for review and approval prior to the issuance of a building permit; County review would ensure compliance with applicable standards. 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 seismic recommendations provided by a California registered Professional Engineer in accordance with California and Kern County Building Code requirements.

Although potential impacts from liquefaction are considered to be less than significant, adherence to the requirements of the Kern County Building Code and the 2022 CBC would ensure that effects from seismic-related ground failure including the potential for liquefaction would be further minimized. The facility would be constructed in accordance with all applicable codes. Therefore, the proposed project would not exacerbate or contribute to the potential for liquefaction. Additionally, personnel present during the construction and operation phases of the proposed project would not be exposed to a substantial increase in seismic-related ground failure hazards as a result of project implementation. Implementation of these building code requirements and local agency enforcement would reduce impacts to less than significant levels.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be 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.

The project site is relatively flat and has no substantive slopes. The project site is not expected to have a landslide potential. Therefore, development of the proposed project would not directly or indirectly cause potential substantial adverse effects, including risk of loss, injury or death involving landslides. No impacts would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance

No impact would occur.

Impact 4.7-5: The project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: substantial soil erosion or the loss of topsoil.

Construction of the proposed project and associated improvements would involve earth-disturbing activities that could expose soils to the effects of wind or water erosion. Although the project site and surrounding study area consists of relatively flat topography and would not involve substantive cut and fill operations, earthmoving and construction activities could loosen soil, and the removal of existing vegetation could contribute to potentially significant soil loss and erosion.

The proposed project would be required to prepare and implement a Sedimentation Control Plan to ensure that substantial soil erosion does not occur on-site. The Sedimentation Control Plan would specify various 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 a SWPPP, as required by **Mitigation Measures MM 4.7-8** below, and **MM 4.10-1** (see **Section 4.10, Hydrology and Water Quality**). In addition, **Mitigation Measure MM 4.7-7** listed above would require the proposed project to submit grading plans accompanied by a soils engineering report, engineering geology report, and drainage calculations pursuant to the Kern County Grading Code (Section 17.28.070) to the Kern County Engineering and Survey Services Department in order to obtain required grading permits. Compliance with **Mitigation Measure MM 4.7-7** would ensure that excessive grading does not occur. As a result, project construction would have less than significant impacts related to erosion with implementation of **Mitigation Measures MM 4.7-7, MM 4.7-8, and MM 4.10-1** (see **Section 4.10, Hydrology and Water Quality**).

Project operations could include the periodic cleaning of trucks and associated operational equipment. However, this is not expected to result in soil erosion because of the infrequency of these activities and the limited volumes of water involved; water is expected to infiltrate into the ground and not generate substantial erosion or soil loss. Project operations would not require ground disturbance. As a result, project operation would have a less than significant impact as it relates to soil erosion and no mitigation is necessary during operation.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.10-1**, (see **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. The Soil Erosion and Sedimentation Control Plan shall include, but is not limited to, the following:

1. Best Management Practices (BMPs) to minimize soil erosion consistent with Kern County grading requirements and the California Regional Water Quality Control Board (RWQCB) requirements pertaining to the preparation and approval of a Storm Water Pollution Prevention Plan (SWPPP). (BMPs recommended by the Kern County Public Works Department shall be reviewed for applicability);
2. Sediment collection facilities as may be required by the Kern County Public Works Department;
3. A timetable for full implementation, estimated costs, and a surety bond or other security as approved by the County; and
4. Other measures required by the County during permitting, including long-term monitoring (post-construction) of erosion control measures until site stabilization is achieved.

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 Measures MM 4.7-7 MM 4.7-8**, and **MM 4.10-1**, 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 off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.

Because of the flat topography of the project site, the risk of on-site or off-site landslides associated with development of the proposed project is considered negligible.

According to the Geotechnical Evaluation, groundwater fluctuates according to a number of factors. For example, while no groundwater was encountered at the project site in borings to the depths of 51.5 feet, a groundwater monitoring well approximately 2.2 miles southeast of the site recorded levels no greater than 34 feet BGS, while groundwater levels at an additional well located 3.2 miles southeast were found to range from approximately 141 to 145 feet BGS, and groundwater monitoring well data from the Francisco Navarro Property cleanup case approximately 3 miles northeast of the project site indicate that groundwater flows to the west at depths of 138 to 145 feet BGS.

In general, saturated unconsolidated sediments would need to be present within the upper 50 feet of ground surface to be considered potentially liquefiable. However, the project site is not mapped for liquefaction hazards and groundwater was not encountered in borings up to 51.3 feet during the Geotechnical Evaluation (Ninyo & Moore 2023).

Land subsidence in the area of the project site could result from excessive pumping of the underground aquifer. Groundwater pumping may occur near the site boundary for nearby agricultural purposes, but at levels too small to contribute significantly to subsidence. A review of the aerial imagery for this area shows the presence of an agricultural water supply canal approximately 950 feet east of the project site. This is the most likely source for water supplies for the intensive agriculture (orchards) used in the surrounding land uses. For this reason, the potential risk for land subsidence is considered to be low to negligible.

The potential for soil collapse at the project site is considered negligible as the project site is located on a relatively flat-lying plain. As previously discussed, the probability of damage from surface fault rupture is considered to be low. The project site is not located within a State of California Earthquake Fault Zone, and the site soils are not considered susceptible to significant dynamic settlements due to earthquake-induced liquefaction (Ninyo & Moore 2023). However, as demonstrated by the Geotechnical Evaluation, the proposed project is stable in the event of potential landslide, lateral spreading, subsidence, liquefaction, or collapse. Furthermore, the proposed project would comply with applicable laws, regulations, policies, requirements, and standards to further reduce potential impacts related to unstable geologic units. As a result, impacts would be considered less than significant.

Mitigation Measures

No mitigation is required.

Level of Significance

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.

Project site soils consist of Bakersfield fine sandy loam and Vineland loamy sand (UC Davis California Soil Resource Lab 2023). The shrink swell behavior of expansive soils can lead to damage of project improvements over time if not addressed appropriately prior to construction. However, sandy loam is not considered to be an expansive soil, and as described above the proposed project would incorporate recommendations from the Geotechnical Evaluation into project construction and design plans to reduce potential impacts related to unstable soil. In addition, a California Geotechnical Engineer must include an evaluation for expansive soils and provide recommendations consistent with 2022 CBC requirements to reduce potential adverse effects from expansive soils. Therefore, with incorporation of recommendations

from the Geotechnical Evaluation as outlined in **Mitigation Measure MM 4.7-2**, impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.7-2** would be required.

Level of Significance

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.

The proposed project would use portable bathroom facilities to accommodate on-site workers during project construction. During operations, the proposed project would be served by a private wastewater collection and treatment package system located on-site to accommodate the proposed project's wastewater needs. Although the project site soils are capable of adequately supporting the proposed wastewater treatment plant, implementation of **Mitigation Measure MM 4.7-9**. Therefore, no potential for impacts related to the on-site soils' ability to support a septic system would be present and impacts would be less than significant.

Mitigation Measures

MM 4.7-9 Prior to the issuance of permits, the project proponent shall provide evidence to the Kern County Planning and Natural Resources Department that the siting, design and construction of proposed septic system(s) and leach field disposal system(s) comply with the 2016 Kern County On-site Systems Manual as authorized by the California Water Board Local Agency Management Program (LAMP) and administered locally by the Kern County Environmental Health Services Department (KCEHS). Proving the proposed septic design plans comply with these requirements will ensure that all standards for septic tanks, seepage pits, and soils are capable of adequately supporting the use of septic tanks. The project proponent shall provide evidence of concurrence/approval of the final design from Kern County Environmental Health Services Department.

Level of Significance

With implementation of **Mitigation Measure MM 4.7-9**, impacts would be less than significant.

Impact 4.7-9: The project could directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

Geological mapping indicates that the region in which the project site is located is underlain by Quaternary-aged alluvial fan deposits, specifically Pleistocene to Holocene marine and non-marine sedimentary rocks consisting of alluvium and lake deposits (CGS 2002b, CGS 2010). Furthermore, the Paleontological Records Search indicates that surficial deposits within the project site consist of low-sensitivity Holocene-age Quaternary alluvium which is typically not paleontologically sensitive (Finger 2021). Based on the Paleontological Records Search performed for the project site and geological map and paleontological literature review, the project site is located on undivided Holocene fan deposits that are too young to be

fossiliferous and therefore, have no paleontological potential. The project site is not expected to disturb any pre-Holocene deposits.

However, if significant vertebrate fossils are encountered during project implementation, disturbance of such resources would result in a potentially significant impact to paleontological resources. Therefore, excavations within older Quaternary alluvium could impact significant vertebrate fossil resources and would be considered a potentially significant impact to paleontological resources. With implementation of **Mitigation Measure MM 4.7-10** through **MM 4.7-12**, which would require Paleontological Resources Awareness Training for construction workers, use of a qualified paleontological monitor during construction activities, and appropriate treatment of inadvertently uncovered paleontological resources, impacts to paleontological resources would be reduced to less than significant.

Mitigation Measures

MM 4.7-10 Prior to the issuance of grading or building 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.

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 4.7-11 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.

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 4.7-12 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 implementation of **Mitigation Measures MM 4.7-10** through **MM 4.7-12**, impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

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. Cumulative projects listed in **Chapter 3, Project Description, Table 3-5, Cumulative Projects List**, would be subject to relatively similar seismic hazards as that of the proposed project. There are 15 projects within 1 mile of the project site. However, the effects of these projects are not of a nature to cause cumulatively significant effects related to geologic impacts or on soils because such impacts are site-specific and would only have the potential to combine with impacts of the proposed project if they occurred in the same location as the

proposed project. Therefore, the geographic scope for evaluating the potential for cumulative impacts is limited to the immediate project vicinity. 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 proposed 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 loss injury or death to a less than significant level. Accordingly, cumulative impacts would be less than significant. Furthermore, with implementation of **Mitigation Measures MM 4.7-1** through **MM 4.7-7**, the proposed project, would not result in a cumulatively significant contribution to the less than significant cumulative impact by directly or indirectly causing potential substantial adverse effects including fault rupture, strong seismic ground shaking, or seismic-related ground failure including liquefaction and landslides.

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 upon specific sites within a proposed development and upon the soil characteristics and topography of each site. Individual projects are required to comply with applicable codes, standards, and permitting requirements (e.g., preparation of a SWPPP) to mitigate erosion impacts. Specifically, all planned projects in the project vicinity 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. Adherence to existing regulations would ensure that cumulative impacts in the geographic scope are less than significant.

Moreover, the proposed project's compliance with these codes, BMPs, standards and permitting requirements, as required by **Mitigation Measures MM 4.7-1** through **MM 4.7-8**, would ensure that the proposed project's incremental contribution to less than significant cumulative impacts would not be considerable. With implementation of **Mitigation Measures MM 4.7-1** through **MM 4.7-8**, the proposed project would not contribute to any cumulative impacts related to substantial soil erosion or loss of topsoil. Cumulative impacts would be less than significant.

As previously discussed, risks of on-site or off-site landslides associated with development of the proposed project are considered negligible. In addition, the potential for liquefaction and other geologic hazards related to liquefaction, including lateral spreading and dynamic settlement, are also considered low as historic groundwater levels in the area of the project site have been recorded at a depth greater than 100 feet BGS. With regard to subsidence, as the proposed project would not obtain water from an underground aquifer, development of the proposed project would not lead to subsidence on the project site or in the area. In addition, cumulative projects would be expected to use water supply canals and water pumping facilities in the project vicinity rather than pumping from underground aquifers. Furthermore, collapse would likely be negligible in the areas surrounding the project site. However, as with the proposed project, cumulative projects would be required to prepare a design-level geotechnical investigation in compliance with **Mitigation Measure MM 4.7-2**, which would include further pre-construction subsurface exploration to confirm the subsurface conditions. With implementation of a design-level geotechnical investigation, the

proposed project would not contribute to any cumulative impacts related to on-site or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Cumulative impacts would be less than significant.

As mentioned above, cumulative impacts related to geology and soils are site-specific and would only have the potential to combine with impacts of the proposed project if they occurred in the same location as the proposed project. Therefore, the geographic scope for evaluating the potential for cumulative impacts is limited to the immediate project vicinity. With regard to expansive soils, the proposed project would incorporate design plan recommendations from the Geotechnical Evaluation. For instance, 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 on-site construction supervisor and the Kern County Building Inspector to ensure compliance. As such, the proposed project would not contribute to any cumulative impacts related to expansive soils. Cumulative impacts would be less than significant.

As discussed above, the proposed project does not contemplate a septic tank. It would use portable bathroom facilities to accommodate on-site workers and no wastewater disposal facilities, including septic systems, would be necessary during construction. At operation, the proposed project would be served by a private wastewater collection and treatment package system located on-site to accommodate wastewater needs. Therefore, there are no impacts related to the on-site soils' ability to support a septic system and the proposed project would not contribute to any cumulative impacts related to soils stability to support a septic system.

Paleontological resources resource impacts tend to be localized, because the integrity of any given resource depends on what occurs in the immediate vicinity around that resource, such as disruption of soils; therefore, in addition to the project site itself, the area near the project site would be the area most affected by project activities (generally within a 0.5-mile radius). Given similarities in geologic formations, this area is expected to contain similar types of paleontological resources. There is no temporal scope because direct impacts to paleontological resources are permanent. Cumulative impacts to paleontological resources in the study area could occur if other related projects, in conjunction with the proposed project, had or would have impacts on paleontological resources that, when considered together, would be significant. Development of the proposed 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. Construction activities associated with cumulative development projects in the project vicinity may have the potential to encounter undiscovered paleontological resources. Cumulative projects would be required to mitigate for impacts through compliance with applicable federal and State laws governing paleontological resources which would reduce cumulative impacts to below a level of significance.

Given that the proposed project would not have a known, direct impact on any known paleontological resources with implementation of mitigation, the proposed project's contribution to less than significant cumulative project impacts would not be cumulatively considerable. Additionally, mitigation measures included in this Draft EIR to reduce potentially significant project impacts to paleontological resources during construction of the proposed project would further reduce the proposed project's already less than significant contribution to cumulative impacts. Implementation of **Mitigation Measure MM 4.7-10**

requires paleontology sensitivity training for construction workers and **Mitigation Measure MM 4.7-11** requires appropriate monitoring of construction activities for potential paleontological resources that may be encountered. Although project construction has the potential to disturb paleontological resources, the implementation of **Mitigation Measure MM 4.7-12** would ensure the appropriate protocol is followed regarding identifying and handling remains. Implementation of these mitigation measures would reduce potential impacts to paleontological resources to a less than significant level. With implementation of **Mitigation Measures MM 4.7-10** through **MM 4.7-12**, the proposed project would not result in significant impacts to paleontological resources. Given this minimal impact and the requirement for similar mitigation for other projects in the southern San Joaquin Valley in order to adhere to existing local, State, and federal regulations, the proposed 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. Therefore, cumulative impacts to paleontological resources would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.7-1** through **MM 4.7-12** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.7-1** through **MM 4.7-12**, cumulative impacts would be less than significant.

Section 4.8
Greenhouse Gas Emissions

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4.8.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting relating to greenhouse gas (GHG) emissions for the proposed project. This section also describes the impacts associated with GHGs that would result from implementation of the proposed project and, as necessary, mitigation measures that would reduce these impacts.

Information in this section is based primarily on the GHG section of the proposed project’s air quality technical report, *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FCS 2023a), located in Appendix B of this Draft EIR and incorporated by reference herein. The impact assessment for the proposed project is also based upon a review of relevant literature and technical reports that include, but are not limited to, information and guidelines by the California Air Resources Board (ARB), United States Environmental Protection Agency (EPA), and the applicable provisions of the California Environmental Quality Act (CEQA).

4.8.2 Environmental Setting

GHGs and climate change are a cumulative global issue. The ARB and EPA regulate GHG emissions within the State of California and the United States, respectively. While ARB has the primary regulatory responsibility within California for GHG emissions, local agencies can also adopt policies for GHG emissions reduction. ARB has divided California into regional air basins. The project site is located in the Kern County portion of the San Joaquin Valley Air Basin (SJVAB) and is under the jurisdiction of the San Joaquin Valley Air Pollution Control District (SJVAPCD).

Greenhouse Gases

GHGs refer to gases that absorb and re-emit infrared radiation in the atmosphere. Many chemical compounds found in Earth’s atmosphere act as GHGs, which allow sunlight to enter the atmosphere freely. When sunlight strikes Earth’s surface, some of it is reflected back toward space as infrared radiation (heat). GHGs, however, absorb some of this infrared radiation and trap the heat in the atmosphere. Over time, the amount of energy sent from the sun to Earth’s surface should be about the same as the amount of energy radiated back into space, leaving the temperature of Earth’s surface roughly consistent. However, many gases exhibit the “greenhouse” properties. Some of them occur in nature (water vapor, carbon dioxide, methane, and nitrous oxide) while others are exclusively human-made (e.g., gases used for aerosols). The principal GHGs are carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), sulfur hexafluoride (SF₆), perfluorocarbons (PFCs), and hydrofluorocarbons (HFCs), are listed below (EPA 2023).

- **Carbon dioxide:** CO₂ is an odorless, colorless, natural GHG that enters the atmosphere through the burning of fossil fuels (oil, natural gas, and coal), solid waste, trees and wood products, and chemical reactions (e.g., the manufacture of cement). CO₂ is also removed from the atmosphere (or “sequestered”) when it is absorbed by plants as part of the biological carbon cycle.

- **Methane:** CH₄ Methane is a flammable gas and is the main component of natural gas. It has a lifetime of 12 years and is emitted during the production and transport of coal, natural gas, and oil. CH₄ emissions also result from livestock and agricultural practices and the decay of organic waste in municipal solid waste landfills.
- **Nitrous oxide:** N₂O (laughing gas) is a colorless GHG with a lifetime of 114 years and is emitted during agricultural and industrial activities and during combustion of fossil fuels and solid waste.
- **Fluorinated gases:** HFCs, PFCs, and SF₆ are synthetic, powerful climate change gases emitted from a variety of industrial processes. Fluorinated gases are often used as substitutes for ozone-depleting substances (i.e., chlorofluorocarbons, hydrochlorofluorocarbons, and halons). These gases are typically emitted in minute quantities, but because they are potent climate change gases, they are sometimes referred to as high global warming potential (GWP) gases.
- **Sulfur hexafluoride:** SF₆ is a colorless, odorless, nontoxic, nonflammable gas. SF₆ is most commonly used as an electrical insulator in high voltage equipment that transmits and distributes electricity, including equipment such as electrical circuit breakers, which may be used for the project. The California Climate Action Registry (Registry) lists SF₆ as a potential source of fugitive emissions from electrical transmission and distribution equipment. Fugitive emissions are unintentional leaks of GHGs from equipment such as joints, seals, and gaskets.
- **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 un-reactive 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 are able to 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.
- **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.

Sources of GHG Emissions

On a global scale, GHG emissions are predominantly associated with anthropogenic, or man-made, 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.

In 2021, GHG emissions within California totaled 5,586 million metric tons of carbon dioxide equivalent (MMT CO₂E.). Within California, the transportation sector is the largest contributor, accounting for approximately 40 percent of the total Statewide GHG emissions. Emissions associated with electricity generation are the second largest contributor, totaling roughly 20 percent. Industrial totaled roughly 15 percent (ARB 2022).

Because different GHGs have different GWPs and CO₂ is the most common reference gas for climate change, GHG emissions are often quantified and reported as CO₂ equivalents (CO₂e). For example, SF₆ is a GHG commonly used in the utility industry as an insulating gas in circuit breakers and other electronic equipment. SF₆, while comprising a small fraction of the total GHGs emitted annually worldwide, is a much more potent GHG with 22,800 times the GWP as CO₂. Therefore, an emission of 1 metric ton (MT) of SF₆ could be reported as an emission of 22,800 MT CO₂e (ARB 2014a). Large emissions sources are reported in MMT CO₂e.

Greenhouse Gas Emissions 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 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 rain forests of 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 remarkable 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 to 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 (see **Figure 4.8-1**).

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 percent 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 1500 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 a threshold of a new era of geologic history, one with 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 (.

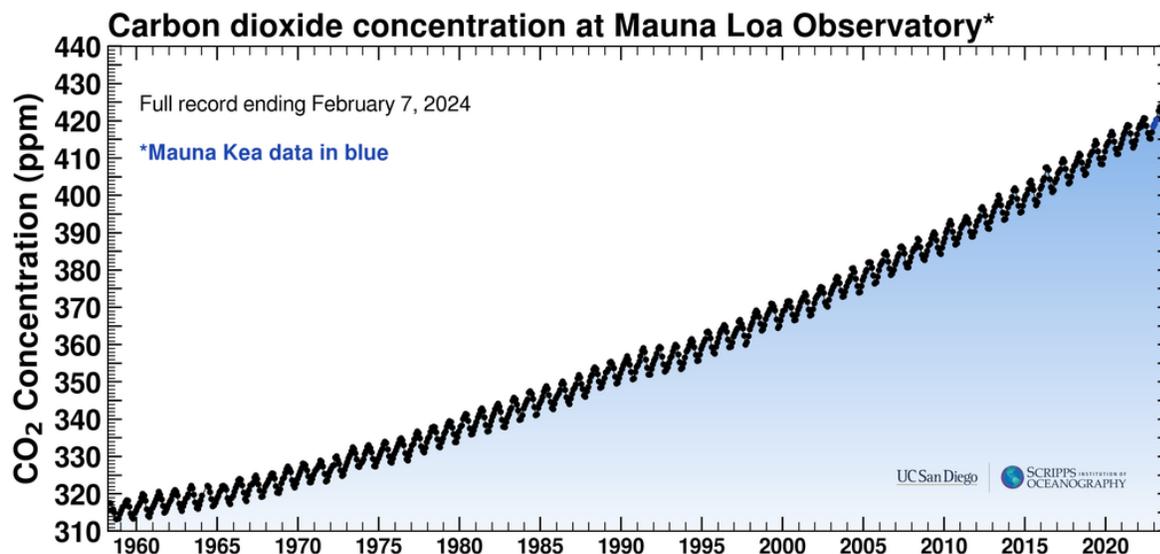


FIGURE 4.8-1 KEELING CURVE DIAGRAM

Effects of Global Climate Change

GHGs are gases in the atmosphere that trap heat. The major concern with GHGs is that increases in GHG concentrations in the atmosphere are causing global climate change, which is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to GHGs from human activities, most in the worldwide scientific community agree that there is a direct link between increased emissions of GHGs and long-term global temperature increases (i.e., global warming).

Changes in the global climate are assessed using historical records of temperature changes that have occurred in the past to extrapolate a level of statistical significance specifically focusing on temperature records from the last 150 years (the Industrial Age) that differ from past climate changes in rate and magnitude.

Several emission trajectories of GHGs needed to stabilize global temperatures and climate change impacts were constructed by the Intergovernmental Panel on Climate Change (IPCC). In the IPCC Fifth Assessment Report, it was predicted that the global mean temperature change from 1990 to 2100 could range from 1.1°C (degree Celsius) to 6.4°C (8 to 10.4°F [degrees Fahrenheit]). Under all scenarios, global average temperatures and sea levels are expected to rise. It was concluded that global climate change was largely the result of human activity, mainly the burning of fossil fuels.

California

According to the ARB, the potential impacts in 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. (ARB 2018a). Globally, climate change has the potential to impact numerous environmental resources through potential, though uncertain,

impacts related to future air temperatures and precipitation patterns. The projected effects of global warming on weather and climate are likely to vary regionally, but are expected to include the following direct effects (IPCC 2001):

- 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
- Reduced diurnal temperature range over most land areas
- Increase of heat index over land areas
- More-intense precipitation events

Also, there are many secondary effects that are projected to result from global warming, including global rise in sea level, ocean acidification (including coral bleaching), impacts to agriculture, changes in disease vectors, and changes in habitat and biodiversity. While the possible outcomes and the feedback mechanisms involved are not fully understood, the potential for substantial environmental, social, and economic consequences over the long-term may be great.

There are uncertainties as to exactly what the climate changes will be in various local areas of the earth. There are also uncertainties associated with the magnitude and timing of other consequences of a warmer planet: sea level rise, spread of certain diseases out of their usual geographic range, the effect on agricultural production, water supply, sustainability of ecosystems, increased strength and frequency of storms, extreme heat events, increased air pollution episodes, and the consequence of these effects on the economy.

Within California, climate change would likely alter the ecological characteristics of many ecosystems throughout the State. Such alterations would likely include increases in surface temperatures and changes in the form, timing, and intensity of precipitation. For instance, historical records are depicting an increasing trend toward earlier snowmelt in the Sierra Nevada. This snow pack is a principal supply of water for the State, providing roughly 50 percent of the State's annual runoff. If this trend continues, some areas of the State may experience an increased danger of floods during the winter months and possible exhaustion of the snowpack during spring and summer months. An earlier snowmelt could also impact the State's energy resources. Currently, approximately 20 percent of California's electricity comes from hydropower. An early exhaustion of the Sierra snowpack may force electricity producers to switch to more costly or nonrenewable forms of electricity generation during spring and summer months. A changing climate may also impact agricultural crop yields, coastal structures, and biodiversity. As a result, changes in climate will likely have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry (California Climate Change Center 2012).

California produced approximately 369.2 gross MMT CO₂e in 2020, which is below the State's GHG reduction target of 1990 level GHG emissions (i.e., 431 MMT CO₂e) by 2020. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2020, accounting for approximately 37 percent of total GHG emissions in the State. This sector was followed by the industrial sector at approximately 20 percent and the electric power sector (including both in-state and out-of-state sources) at approximately 16 percent (ARB 2022b). The ARB has projected that unregulated Statewide GHG emissions for the year 2020 will be approximately 509 MMT CO₂e (ARB 2017). These projections represent the emissions that would be expected to occur in the absence of any GHG reduction actions. California GHG emissions by economic sector from 2012 to 2020 are summarized in **Table 4.8-1: California Greenhouse Gas Emissions (MMT CO₂e)**.

TABLE 4.8-1: CALIFORNIA GREENHOUSE GAS EMISSIONS (MMT CO₂E)

Emission Inventory Category	2012	2013	2014	2015	2016	2017	2018	2019	2020
Transportation	156.9	157.0	157.7	161.5	165.2	166.6	165.3	162.4	135.8
Electricity Generation (In-State)	54.5	53.5	53.0	52.0	44.1	40.2	40.4	38.5	40.9
Electricity Generation (Imports)	44.4	40.0	36.8	33.9	26.4	23.9	24.6	21.7	18.6
Industrial	80.7	83.0	85.2	83.2	81.6	81.7	81.9	80.4	73.3
Commercial and Residential	39.2	39.1	35.6	36.3	37.2	37.6	37.4	40.5	38.7
Agriculture	35.2	33.9	33.9	32.6	32.2	31.7	32.2	31.4	31.6
High GWP	15.5	16.8	17.7	18.6	19.4	20.1	20.5	20.7	21.3
Recycling and Waste	8.2	8.3	8.3	8.4	8.5	8.6	8.7	8.8	8.9
Total Gross Emissions	434.6	431.6	428.2	426.5	414.6	410.4	411.0	404.4	369.1

SOURCE: California Air Resources Board (ARB) 2022b.

Kern County

On May 3, 2011, the Kern County Board of Supervisors signed a memorandum of understanding with the SJVAPCD to develop a community-wide GHG emissions inventory for the County. The *Kern County Community-wide GHG Emissions Inventory 2005 Baseline Year – 2020 Forecast* was finalized in May 2012 (ARB 2012). The GHG emission inventories were estimated 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). The 2005 base year and 2020 forecasted GHG emissions inventory is presented below in **Table 4.8-2**. As shown therein, the 2005 base year GHG emissions inventory was estimated at 27.0 MMT CO₂e and the 2020 forecasted GHG emissions inventory was estimated to be 27.3 MMT CO₂e. Electricity production was estimated to generate 13,002,127 MT CO₂e in 2005 and 18,455,958 MT CO₂e in 2020. Electricity consumption during both the 2005 base year and 2020 forecasted year is provided in **Table 4.8-2: Kern County Greenhouse Gas Emissions (MTCO₂e)**.

TABLE 4.8-2: KERN COUNTY GREENHOUSE GAS EMISSIONS (MTCO₂E)

Sector	2005 Base Year Emissions	Percent of 2005 Total	2020 Forecasted Emissions	Percent of 2020 Total
Electricity Consumption	6,039,114	22%	8,572,261	31%
Residential/Commercial/Industrial Combustion	1,281,498	5%	1,689,414	6%
Transportation	4,569,913	17%	4,823,756	18%
Fossil Fuels Industry	10,928,153	40%	7,002,009	26%

TABLE 4.8-2: KERN COUNTY GREENHOUSE GAS EMISSIONS (MTCO₂E)

Sector	2005 Base Year Emissions	Percent of 2005 Total	2020 Forecasted Emissions	Percent of 2020 Total
Industrial Processes	1,852,124	7%	2,348,754	9%
Waste Management	120,494	<1%	146,788	1%
Agriculture	2,024,470	7%	2,652,616	10%
Forestry and Land Use	11,028	<1%	14,669	<1%
Other Sources	218,823	1%	22,442	<1%
Total Gross Emissions	3,073,572		443.6	

SOURCE: San Joaquin Valley Air Pollution Control District (SJVAPCD) 2012.

Climate Change

GHGs are gases in the atmosphere that trap heat. The major concern with GHGs is that increases in GHG concentrations in the atmosphere are causing global climate change, which is a change in the average weather on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Although there is disagreement as to the rate of global climate change and the extent of the impacts attributable to GHGs from human activities, most in the worldwide scientific community agree that there is a direct link between increased emissions of GHGs and long-term global temperature increases (i.e., global warming).

Addressing the widespread impacts of climate change represents a significant challenge for the State, and one that will increasingly occupy the legislature’s agenda in the coming years. A changing climate presents California with five key climate hazards: (1) higher temperatures and extreme heat events, (2) more severe wildfires, (3) more frequent and intense droughts, (4) flooding due to extreme precipitation events, and (5) coastal flooding and erosion from sea-level rise.

These hazards result in damage to public and private property and infrastructure and pose a considerable threat to public health and wellbeing. Notably, vulnerable communities/populations are disproportionately affected by climate change due to their increased exposure to pollution, less capacity for adapting to climate hazards, and higher levels of pre-existing medical conditions and other socioeconomic and structural stressors (ARB 2023a).

Wildfire smoke has been linked to a greater risk of respiratory and cardiovascular diseases, specifically for more susceptible groups such as children, seniors, and those with underlying chronic diseases.

Hotter temperature or heat is another widely studied climate stressor. Heat exposure is associated with increased risks of mortality and morbidity (e.g., hospitalization for various diagnoses including cardiovascular disease, acute renal failure, respiratory disease, and birth outcomes). Children, the elderly, those with pre-existing conditions, outdoor workers, and low social economic status groups are found to be more vulnerable to heat-related health risks.

Hotter temperature or heat is also shown to lead to increased air pollution episodes. A recent study predicted the future air quality for ozone and PM_{2.5} in three major California air basins and reported a strong likelihood of poorer air quality due to the warmer weather, specifically in the areas that have been disproportionately affected by these pollutants (Zhu S et al., 2019). The combination of exposures to extreme heat and air pollution episodes leads to increased health burdens on communities.

4.8.3 Regulatory Setting

Federal

United States 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 vehicle 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).

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 2023b).

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 nonroad diesel engines that are used in construction equipment. The regulations, contained in 40 Code of Federal Regulations Parts 1039, 1065, and 1068, include multiple tiers of emission standards. Most recently, the EPA adopted a comprehensive national program to reduce emissions from nonroad 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.

State

Executive Order S-1-07

EO S-1-07 recognizes that the main source of GHG emissions in California is from the transportation sector and establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent 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

Executive Order S-3-05 sets target dates to reduce Statewide GHG emissions to historical levels, as follows:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.
- By 2050, reduce GHG emissions to 80 percent below 1990 levels.

Executive Order B-30-15 sets a target date of 2030 to reduce GHG emissions to 40 percent below 1990 levels.

Assembly Bill 32, Senate Bill 32, and Assembly Bill 1279

In 2006, Assembly Bill (AB) 32 (codified in the California Health and Safety Code [HSC], Division 25.5 – California Global Warming Solutions Act of 2006) focuses on reducing GHG emissions in California to 1990 levels by 2020. California Health and Safety Code Division 25.5 defines GHGs as CO₂, CH₄, N₂O, HFCs, PFCs, and SF₆ 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 Health and Safety Code Division 25.5, the ARB has the primary responsibility for reducing GHG emissions and is required to adopt rules and regulations directing State actions that would reduce GHG emissions to 1990 levels by 2020.

In 2016, Senate Bill (SB) 32 and its companion bill, AB 197, amends California Health and Safety Code Division 25.5 and establishes a GHG reduction target of 40 percent below 1990 levels by 2030, and includes provisions to ensure the benefits of State climate policies reach into disadvantaged communities.

In 2022, AB 1279 was passed setting the goal of achieving net-zero GHG emissions no later than 2045 and reducing GHG emission 85 percent below 1990 levels by 2045.

Climate Change Scoping Plans

AB 32 required preparing a Climate Change Scoping Plan for achieving the maximum technologically feasible and cost effective GHG emission reduction by 2020 (HSC § 38561(h)). The ARB developed a Climate Change Scoping Plan that contains strategies to achieve the 2020 emissions cap (ARB 2008). In 2008, the initial Climate Change Scoping Plan contained a mix of recommended strategies that combined direct regulations, market-based approaches, voluntary measures, policies, and other emission reduction programs calculated to meet the 2020 Statewide GHG emission limit and initiate the transformations needed to achieve the State’s long-range climate objectives. In 2014, the First Update to the Scoping Plan upon the initial Climate Change Scoping Plan with new strategies and recommendations (ARB 2014b).

In 2017, the 2017 Climate Change Scoping Plan established a 2030 GHG reduction target of 40 percent emissions reductions below 1990 levels (ARB 2017). The most recent update, the 2022 Climate Change Scoping Plan, assesses progress toward 2030 emissions target and lays out path a to achieving carbon neutrality no later than 2045 (ARB 2022a). The plan addresses the target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045. It lays out a plan based on bold steps to reduce GHGs to meet the anthropogenic emissions target and by expanding actions to capture and store carbon through the State’s natural and working lands and using a variety of mechanical approaches. The major element of this unprecedented transformation is the aggressive reduction of fossil fuels wherever they are currently used in California, building on, and accelerating, carbon reduction programs that have been in place for a decade and a half. The plan calls for a rapid transition to zero-emission transportation; the phasing out the use of fossil gas used for heating homes and buildings, development of sustainable transportation alternatives to reduce reliance on cars and clamping down on use of chemicals and refrigerants with high global warming potential. The plan also identifies a path to keep California on track to meet its SB 32 GHG reduction target of at least 40 percent below 1990 emissions by 2030 (ARB 2022a).

The 2022 Scoping Plan reaffirms and clarifies the role of local governments in achieving the State’s climate goals, particularly as it concerns the approval of new land use development projects and their environmental review under CEQA. It encourages local governments to adopt a CEQA-qualified Climate Action Plan (CAP) addressing three priority areas: (1) transportation electrification, (2) Vehicle Miles Traveled (VMT)

reduction, and (3) building decarbonization. By prioritizing climate action in these three priority areas, local governments can address the largest sources of GHGs within their jurisdiction. Local governments that prepare qualified CAPs that include strategies in these areas are contributing to alignment between local climate action and the State's climate goals.

Senate Bill 97

SB 97 was enacted requiring the Office of Planning and Research (OPR) to develop guidelines for the mitigation of GHG emissions, or the effects related to releases of GHG emissions (OPR 2010). OPR submitted proposed amendments to the Natural Resources Agency in accordance with SB 97 regarding 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 GHG emissions. ARB adopted the vehicular GHG emissions reduction targets, in consultation with the Metropolitan Planning Organizations (MPOs), which require a 7 to 8 percent reduction by 2020 and a 13 to 16 percent 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 (Kern COG), will work with local jurisdictions in the development of 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.

Kern COG adopted the 2022 Regional Transportation Plan (RTP), which includes an SCS component in accordance with SB 375. 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 development of the planned multimodal transportation systems in Kern County (Kern COG 2022). It has been developed through a federally required 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 SCS required by California's Sustainable Communities and Climate Protection Act of SB 375. ARB set targets for Kern's GHG emissions reductions from passenger vehicles and light-duty trucks at 9 percent per capita by 2020 and 15 percent per capita by 2035 as compared to 2005.

Short-Lived Climate Pollutants – Senate Bill 605 and Senate Bill 1383

Short-lived climate pollutants (SLCP) (i.e., black carbon, fluorinated gases, and CH₄) are powerful climate forces 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 the ARB, in coordination with other State agencies and local air districts, to develop a comprehensive SLCP Reduction Strategy, and SB 1383 directed the ARB to approve and begin implementing this strategy. This legislation also set Statewide emissions reduction targets specifying a 40

percent reduction in CH₄, a 40 percent reduction in HFCs, and a 50 percent 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.

California Green Building Standards Code

California Code of Regulations Title 24 Part 11, also known as CALGreen, is the first in the nation mandatory green building standards code (ICC 2023). Green standards were first developed in 2007 to meet the goals of California's landmark initiative AB 32. The code is updated on a regular basis, with the most recent update consisting of the 2022 California Green Building Standards Code (CALGreen) which became effective January 1, 2023. CALGreen standards distinguish between residential and nonresidential occupancy. Recent additions to the code are requirements related to electric vehicle charging infrastructure, water conservation and recycling, and changes made to avoid conflicts with California energy efficiency standards under Title 24, Part 6. Local jurisdictions are permitted to adopt more stringent requirements, as State law provides methods for local enhancements. State building code provides the minimum standard that buildings need to meet in order to be certified for occupancy, which is generally enforced by the local building official.

The latest update, 2022 California Green Building Standards Code went into effect on January 1, 2023. The revised code significantly increases the Mandatory Measures for electric vehicle (EV) charging requirements for both new residential and commercial buildings.

New nonresidential buildings must follow a regulatory schedule that specifies the minimum number of EV Capable, EV Ready and EV Equipped Spaces. The 2022 update requires the addition of required electric vehicle service equipment (EVSE) spaces. EVSE, means "installed charging receptacles or permanently installed chargers." These are the number of charging receptacles/stations that are required to be fully installed.

The 2022 CALGreen update includes mandatory nonresidential measures for site development EV charging under Section 5.106.5.3 Electric Vehicle Charging. To comply with CalGreen EV charging requirements, the proposed project would be required to meet the following standards:

- The transformer, main service equipment and subpanels shall meet the minimum power requirement in Table 5.106.5.4.1 to accommodate the dedicated branch circuits for the future installation of EVSE.
- The construction documents shall indicate one or more location(s) convenient to the planned off-street loading space(s) reserved for medium- and heavy-duty Zero-Emission Vehicle (ZEV) charging cabinets and charging dispensers, and a pathway reserved for routing of conduit from the termination of the raceway(s) or busway(s) to the charging cabinet(s) and dispenser(s).
- Raceway(s) or busway(s) originating at a main service panel or a subpanel(s) serving the area where potential future medium- and heavy-duty EVSE will be located and shall terminate in close proximity to the potential future location of the charging equipment for medium- and heavy-duty vehicles.

- Load to the future location of the charging for medium- and heavy-duty ZEVs. For warehouses with greater than 256,000 square feet, 400 KVA of additional capacity required for raceway, busway, transformer and panel.

California Renewables Portfolio Standard and Senate Bill 100

First established in 2002 under SB 1078, California Renewables Portfolio Standard (RPS) requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 50 percent by 2030 (California Public Utilities Commission 2019). In 2018, SB 100 further increased California's RPS and required retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and that ARB should plan for 100 percent eligible renewable energy resources and zero-carbon resources by the end of 2045. The California Public Utilities Commission (CPUC) and the CEC jointly implement the RPS program. The CPUC's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

Advanced Clean Cars Program

In January 2012, the ARB approved the Advanced Clean Cars program, a new emissions-control program for model years 2015 through 2025 (ARB 2023b). The program combined the control of smog- and soot-causing pollutants and GHG emissions into a single coordinated package. The package includes elements to reduce smog-forming pollution, reduce GHG emissions, promote clean cars, and provide the fuels for clean cars. To improve air quality, the ARB has implemented new emission standards to reduce smog-forming emissions beginning with 2015 model year vehicles. It is estimated that in 2025 cars will emit 75 percent less smog-forming pollution than the average new car sold today. To reduce GHG emissions, ARB, in conjunction with the EPA and National Highway Traffic Safety Administration (NHTSA), has adopted new GHG standards for model year 2017 to 2025 vehicles; the new standards are estimated to reduce GHG emissions by 34 percent in 2025. The ZEV program will act as the focused technology of the Advanced Clean Cars program by requiring manufactures to produce increasing numbers of ZEVs and plug-in hybrid EVs in 2018 to 2025 model years.

Advanced Clean Cars II was adopted in November 2022. The Advanced Clean Cars II regulations will rapidly scale down light-duty passenger car, pickup truck and SUV emissions starting with the 2026 model year through 2035. The regulations are two-pronged. First, it amends the ZEV Regulation to require an increasing number of zero-emission vehicles, and relies on currently available advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric and plug-in hybrid EVs, to meet air quality and climate change emissions standards. These amendments support Governor Newsom's 2020 Executive Order N-79-20 that requires all new passenger vehicles sold in California to be zero-emission by 2035. Second, the Low Emission Vehicle Regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions.

In October 2023, staff launched a new effort to consider potential amendments to the Advanced Clean Cars II regulations, including updates to the tailpipe greenhouse gas emission standard and limited revisions to the Low Emission Vehicle (LEV) and ZEV regulations.

These regulations rapidly scale down emissions of light-duty passenger cars, pickup trucks and SUVs and require an increased number of zero-emission vehicles to meet air quality and climate change emissions goals (ARB 2023b).

Warehouse Projects: Best Practices and Mitigation Measures to Comply with CEQA

There are several resources outlining Best Management Practices (BMPs) for warehouses, including the California Office of the Attorney General's Guidance for Best Practices to comply with CEQA (California Office of the Attorney General 2022) and the ARB Concept Paper for the Freight Handbook (ARB 2020). 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 from the proposed project include:

- Provisions for all ZEV material handling equipment (e.g., forklifts and pallet jacks).
- Restrictions to dry storage, with provisions for BMPs 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 truck (MHDT) and heavy heavy-duty truck (HHDT). (California Building Standards Code [CBC] 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 (LED) lighting.

Regional

2022 Regional Transportation Plan/Sustainable Communities Strategy

Kern COG is designated the RTP Agency and MPO for Kern County. In that capacity, Kern COG models air quality projections on population projections in conjunction with current general plan designations and estimated vehicle miles 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 development of the planned multimodal transportation systems in

Kern County (Kern COG 2022). Included in the 2022 RTP is the SCS required by California’s Sustainable Communities and Climate Protection Act of SB 375.

Local

Construction and operation of the proposed warehouse project would be subject to policies and regulations contained within the general and specific plans, including the Kern County General Plan, Kern County Zoning Ordinance, and the Kern County Code of Building Regulations, which include policies, goals, and implementation measures related to GHG emissions. The Kern County General Plan contains GHG-focused policies, goals, and implementation measures that are more general in nature and not specific to development, such as the proposed project (Kern County Planning Department 2009). These measures are not listed below, but as stated in Chapter 2, *Introduction*, all policies, goals, and implementation measures in the Kern County General Plan are incorporated by reference.

Kern County

Kern County addresses GHG most broadly in its General Plan. The County does not have a qualified GHG reduction plan or any reach codes that would address building electrification.

In 2009, the Kern County Board of Supervisors approved the proposed list of Energy, Efficiency, and Conservation projects for which the County will request funding under the provisions of the American Recovery and Reinvestment Act of 2009. The Kern County Planning and Natural Resources Department has requested an allocation for the preparation of a Climate Change Action Plan (CCAP) for the County General Plan. California’s Climate Scoping Plan calls for local governments to reduce GHG emissions through the adoption of local programs as an important strategy to reduce community scale GHG emissions. However, as previously noted, the County currently does not have a qualified GHG reduction plan.

Metropolitan Bakersfield General Plan (Unincorporated Area)

The Metropolitan Bakersfield General Plan (Unincorporated Area) includes the following relevant goals and policies with respect to GHGs:

Chapter 5: Conservation/Air Quality

Goals

- Goal 1** Promote air quality that is compatible with health, wellbeing, 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 Air Pollution Control District.
- Goal 3** Reduce the amount of vehicular emissions in the planning area.

Policies

- Policy 4** Consider air pollution impacts when evaluating discretionary permits for land use proposals. Considerations should include:

- a. Alternative access routes to reduce traffic congestion.
- b. Development phasing the match road capacities.
- c. Buffers including increasing vegetation to increase emission dispersion and reduce impacts of gaseous or particulate matter on sensitive uses.

- 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 1** Amend as needed the City and County Zoning Ordinances to:
- a. Incorporate the provisions of the Air Quality Management Plan.
 - b. Incorporate measures identified under the Transportation System Management Plan for Metropolitan Bakersfield.
 - c. Limit intrusions into the pedestrian right-of-way.
 - d. Require air quality design considerations indicated in Policies 22 and 25.
- 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.

San Joaquin Valley Air Pollution Control District

The SJVAPCD has published *Guidance for Valley Land-Use Agencies in Addressing GHG Emissions Impacts for New Projects* (SJVAPCD Guidance). According to the SJVAPCD Guidance, SJVAPCD takes a tiered approach for determining significance from GHG emissions as summarized below:

- Tier 1** Project Exemption from CEQA.
- Tier 2** Project complies with an adopted Statewide, regional, or local plan for the reduction or mitigation of GHG emissions.
- Tier 3** The project achieves the 29 percent GHG Emissions Reduction Target by using approved BMPs.
- Tier 4** GHG emissions are quantified and the project implements best performance standards or achieves a GHG emissions reduction of 29 percent below Business-as-usual (BAU).

With respect to the proposed project, the Tier 1 approach cannot be used as the proposed project is not exempt from CEQA. With respect to Tier 2, neither the State, nor the County of Kern has a qualified (CEQA verified and adopted) CAP or other plan for reducing GHG emissions. Therefore, Tier 2 cannot be used for determining significance with regards to GHG emissions. In light of *Center for Biological Diversity v. California Department of Fish and Wildlife (CBD vs. CDFW 62 Cal.4th 204, 2015)*, the use of either Tier 3 or Tier 4 as significance thresholds also are not recommended for use in determining significance. Note that for Tier 4, BAU is a valid approach, however, the quantitative BAU reduction criteria in the SJVAPCD Guidance lacks the necessary support as specified in *CBD vs. CDFW 62 Cal.4th 204, 2015*.

The 29 percent GHG emissions reductions in the 2015 SJVAPCD Guidance are aligned with 2020 planning goals for AB32. A BAU approach utilizing Tier 4 methods for post-2020 development projects would require updated emission GHG inventory for 2030 as well as revised reduction target that are aligned with SB32 goals of 40 percent reduction of GHG emissions from 1990 baseline. These inventories and thresholds have not been developed to date.

The SJVAPCD also has recommended Best Performance Standards (BPSs) for stationary sources. However, due to the nature of the proposed project as a development project, these BPSs are not applicable to the proposed project.

4.8.4 Impacts and Mitigation Measures

Methodology

The proposed project's potential impacts to GHGs have been evaluated using a variety of resources, including the *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FCS, 2023a), which is provided in Appendix B of this Draft EIR, and relevant literature including information and guidelines by the ARB, EPA, and the applicable provisions of CEQA. Using the aforementioned resources and professional judgment, impacts were

analyzed according to CEQA significance criteria described in the Thresholds of Significance section, below.

Construction

Short-term emissions are primarily from the construction phase of a project. CalEEMod Version 2022.1.19 was used to estimate emissions from construction worker vehicles, on-site construction equipment, and off-site vendor and haul truck trips. Construction of the proposed project would result in GHG emissions primarily associated with the use of off-road construction equipment, on-road hauling and vendor (material delivery) trucks, and worker vehicles. Detailed construction assumptions are provided in the *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FCS 2023a), included in Appendix B, of this Draft EIR.

Operation

Long-term operational emissions associated with the proposed project were also calculated using CalEEMod Version 2022.1.19. Long-term GHG emissions would be predominately caused by mobile source emissions. Mobile sources for the proposed project would primarily be motor vehicles (automobiles and heavy-duty trucks) traveling to and from the project site. Motor vehicles may be fueled with gasoline, diesel, or alternative fuels. The proposed project is expected to generate 3,907 daily passenger vehicle trips and 145 daily heavy-duty truck trips. Details regarding fleet mix, trip lengths, and other assumptions are provided as part of Appendix B. As described in Appendix B, the proposed project would generate GHG emissions from refrigerant use and indirect sources (such as electricity use). For all details regarding operational sources of GHG emissions, including assumptions used to generate project-level estimates, refer to *Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report for the Westside Industrial Project, Kern County, California* (FCS 2023a), included in Appendix B of this Draft EIR.

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 GHGs.

A project would have a significant impact on GHGs if it would:

- a. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment; or
- b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

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.

Section 15064.4(b) of the CEQA Guidelines for GHG emissions states that a lead agency may take into account the following three considerations in assessing the significance of impacts from GHG emissions.

- **Consideration No. 1:** The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.

- **Consideration No. 2:** Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- **Consideration No. 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. Such regulations or requirements must be adopted by the relevant public agency through a public review process and must include specific requirements that 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 this 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.

Regarding Consideration 2, the SJVAPCD implemented a tiered approach to determining significance with respect to GHG emissions; however, in light of *Center for Biological Diversity v. California Department of Fish and Wildlife* and SB 32, the quantitative threshold presented in their CAP is no longer appropriate for determining significance of project-related GHG emissions. Moreover, the SJVAPCD BAU thresholds of 29 percent were developed for consistency with AB32 2020 target reductions, which is a past goal. SJVAPCD has not developed new inventories or targets for reductions aligned with 2030 SB32 GHG reductions, or beyond. Therefore, use of the SJVAPCD thresholds under Consideration 2 are not applied to this project.

Consideration 3 described above, the analysis prepared for the proposed project is based on a qualitative evaluation of the proposed project's consistency with State and local regulations and policies adopted to for the reduction and/or mitigation of GHG emissions. Kern County has not developed a quantified threshold of significance for GHG emissions, but a project found to contribute to a net decrease in GHG emissions and found to be consistent with the adopted implementation of the ARB Climate Change Scoping Plan and progress toward 2030 goals is presumed to have less-than-significant GHG impacts. This includes qualitative assessments of compliance of ARB applicable regulations as well as the 2017 Scoping Plan and the 2022 Scoping Plan. This analysis supports the GHG significance findings under **Impacts 4.8-1** and **4.8-2**.

Project Impacts

Impact 4.8-1: The project would generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Implementation of the proposed project would contribute to global climate change through direct emissions of GHG from on-site area sources and vehicle trips generated by the proposed project, and indirectly through off-site energy production required for on-site activities, water use, and waste disposal. Three GHGs associated with the proposed project would be CO₂, CH₄, and N₂O, and would be emitted from on-road vehicles and nonroad equipment during construction and from vehicles used during routine operational activities. The estimated GHG emissions from construction and operational activities associated with the

proposed project are shown in **Table 4.8-3, Table 4.8-3: Construction Greenhouse Gas Emissions**, and **Table 4.8-4, Unmitigated Project Operational Greenhouse Gases 2026**.

GHG Emissions from the Proposed Project

Table 4.8-3, Table 4.8-3: Construction Greenhouse Gas Emissions, and **Table 4.8-4, Unmitigated Project Operational Greenhouse Gases 2026**, present the proposed project’s GHG emissions, as predicted using CalEEMod. These emissions are provided to show (1) the magnitude of the proposed project’s GHG emissions relative to overall local and regional levels, and (2) the breakdown of emissions from the proposed project by category (e.g., mobile, stationary source, building electrical energy, building natural gas etc.). The results were obtained using CalEEMod default values for various sectors and do not capture nuanced emission reductions improvements in energy efficiency beyond the Title 24 2022 standards since these are not included in the CalEEMod emission model. Moreover, many assumptions used in the modeling such as the operational testing hours for the air conditioning and heating requirements for the warehouse are also extremely conservative and likely to overestimate the greenhouse gas burden of the proposed project. Modeling for transportation and VMT for calculation of CO₂e were based on the proposed project’s unmitigated emissions using CalEEMod defaults. It is important to note that because there are no GHG emission thresholds to compare the proposed project’s CalEEMod emission numbers against, **Table 4.8-3, Table 4.8-3: Construction Greenhouse Gas Emissions**, and **Table 4.8-4, Unmitigated Project Operational Greenhouse Gases 2026**, are provided for informational purposes only.

Construction Emissions

Total GHG emissions generated during construction activities were combined and are presented in **Table 4.8-3: Construction Greenhouse Gas Emissions**. The SJVAPCD does not recommend assessing the significance of construction-related emissions. However, other jurisdictions, such as the South Coast Air Quality Management District (SCAQMD) and the Sacramento Metro Air Quality Management District, have concluded that construction emissions should be included 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.

TABLE 4.8-3: CONSTRUCTION GREENHOUSE GAS EMISSIONS

Phase	GHG Emissions MT CO₂e
2024 + 2025	2,346
Annualized Construction Emissions	78

NOTES:

Because of rounding, total MT CO₂e may be marginally different from CalEEMod output.
 MT CO₂e = metric tons of carbon dioxide equivalents.

SOURCE: FirstCarbon Solutions (FCS) 2023.

Operational Emissions

Operational or long-term emissions occur over the life of the project. Sources of emissions may include motor vehicles and trucks, energy usage, water usage, waste generation and emissions from area sources, such as landscaping activities.

Full assumptions and model outputs are provided in Appendix A and results of this analysis for 2026 (the anticipated first full year of proposed project operations) are presented in **Table 4.8-4: Unmitigated Project Operational Greenhouse Gases 2026**.

TABLE 4.8-4: UNMITIGATED PROJECT OPERATIONAL GREENHOUSE GASES 2026

Source	Emissions (MT CO ₂ e per year)	
	2026	Percent of Total
Area (Landscaping)	10	< 0.5%
Energy–Electrical	400	3%
Mobile–Trucks	6,995	49%
Mobile–Cars ¹	6,335	45%
Solid Waste	185	1%
Water/Wastewater	227	1%
Stationary	–	–
Amortized Construction Emissions	78	1%
Total Emissions	14,232	100

Notes:

MT CO₂e = metric tons of carbon dioxide equivalent

¹ Modeling for transportation and VMT for calculation of CO₂e were based on the proposed project’s unmitigated emissions using CalEEMod defaults.

Source: FirstCarbon Solutions (FCS) 2023.

Reported operational emissions are considered to represent unmitigated project conditions. Many project design features such as those related to water efficient landscape ordinances, updated 2022 Energy and 2022 CALGreen Standards would reduce GHG emissions to levels below the estimates in CalEEMod, as quantitative inputs for these updated operational assumptions are not included within its database yet. Other reductions not accounted for in the baseline emissions include the on-site production of electricity via rooftop solar.

It should be noted that inclusion of **Mitigation Measure MM 4.8-1** as an emission reduction measure for ZEV material handling equipment in the model predicted no emissions for forklifts. The proposed project’s reduction of GHG emissions from this sector is ahead of any State or local regulatory mandate and would be considered a reduction from BAU in a quantitative greenhouse analysis. A warehouse of 629,000 square feet could have, on average, 0.12 pallet jacks or forklifts per 1,000 square feet of building area, 75 forklifts in operation (each utilizing one 8-gallon LPG tank per day, 250 working days per year for an estimated emissions impact of 11.5 MT per year CO₂ per forklift) (SCAQMD 2014). The proposed project’s commitment to ZEV forklifts, therefore, represents a potential emission reduction of approximately 860 MT CO₂e per year.

Project Mobile Emissions Compared to RTP/SCS Goals

As explained in Section 2.3, the California ARB set targets for Kern COG's GHG emissions reductions from passenger vehicles and light-duty trucks at 9 percent per capita by 2020 and 15 percent per capita by 2035 as compared to 2005. The existing County average VMT is 23.29 such that a 15 percent reduction would correspond to threshold of 19.80 VMT per employee.

According to the proposed project's traffic study, the proposed project area has a VMT of 26.23 per employee, exceeding the threshold and resulting in significant VMT impact. The mitigation required to reduce the VMT to below the threshold would be 6.43 VMT per employee or 24.5 percent. Although the proposed project would be required to implement Transportation Demand Management (TDM) program to reduce VMT, it is unclear whether the TDM program would reduce project VMT to below the 19.80 VMT per employee threshold. Therefore, the proposed project would not be consistent with the VMT reduction targets set forth in the Kern COG RTP/SCS.

Furthermore, the RTP/SCS set forth CO₂ emission reduction targets that are based on the SB 375 VMT targets. Because the proposed project would not meet the VMT target in the RTP/SCS, the proposed project's mobile emissions would also exceed the CO₂ emissions in the RTP/SCS. Therefore, the proposed project would have a significant GHG impacts with respect to its mobile sources.

Future Operational Emissions Based on Project Regulatory Compliance and Proposed Mitigation Measures

Since the emissions from the proposed project are primarily from off-site mobile source emissions and indirect electricity emissions, emissions would continue to decline rapidly for future buildout years based on currently applicable regulations and mitigation measures adopted by the proposed project. CEQA requires all feasible mitigation measures, and the proposed project is doing its fair share to contribute to GHG emission reductions with measures that have immediate impacts (such as building decarbonization). However, other commitments and regulations (such as the conversion to ZEV trucks and implementation of the advanced clean fleets) are on future timelines based on technical feasibility and as such the proposed project is aligned with the States 2030 and 2045 GHG goals. The ARB has carefully considered technology availability and infrastructure, in relationship to truck travel and fleet usage in its development of the Advanced Clean Fleet Regulation. Elements of the proposed project such as ZEV infrastructure for cars and trucks, would support the implementation of these regulations and are consistent with State GHG reduction policies.

Emissions of indirect GHG from the facility operation itself as indirect emissions related to solid waste and water, would also continue to decline as the State moves toward and achieves its RPS goal of 100 percent by 2045. PG&E, the local electricity is already ahead of schedule with its RPS goals and 70 percent of its power was renewable and 94 percent was carbon free in 2021. Solar produced on-site by the warehouse was not quantified in CalEEMod since the exact quantity of the photovoltaic (PV) produced on-site is not yet known and these amounts are not represented in this analysis.

The proposed facility is assumed to be used for dry storage only (i.e., non-refrigerated use). Therefore, as part of **Mitigation Measure MM 4.8-2**, cold storage uses are prohibited on the project site unless prior to the issuance of occupancy permits, the Planning Department confirmed that the tenant lease agreements include contractual language that requires all Transport Refrigeration Units (TRUs) entering the project site

be plug-in capable. Electrical hookups shall be provided as part of the tenant improvements for any tenant that requires cold storage.

Finally, emissions from direct area sources (landscaping emissions) may be mitigated via use of electric landscaping equipment and recently promulgated Small Off-road Engine (SORE) Regulations address the electrification of this equipment. The 2021 SORE amendments require the sale of electric landscaping equipment starting in 2023 (ARB 2021). It is assumed that by 2030 the facility would be utilizing 100 percent electric landscaping equipment.

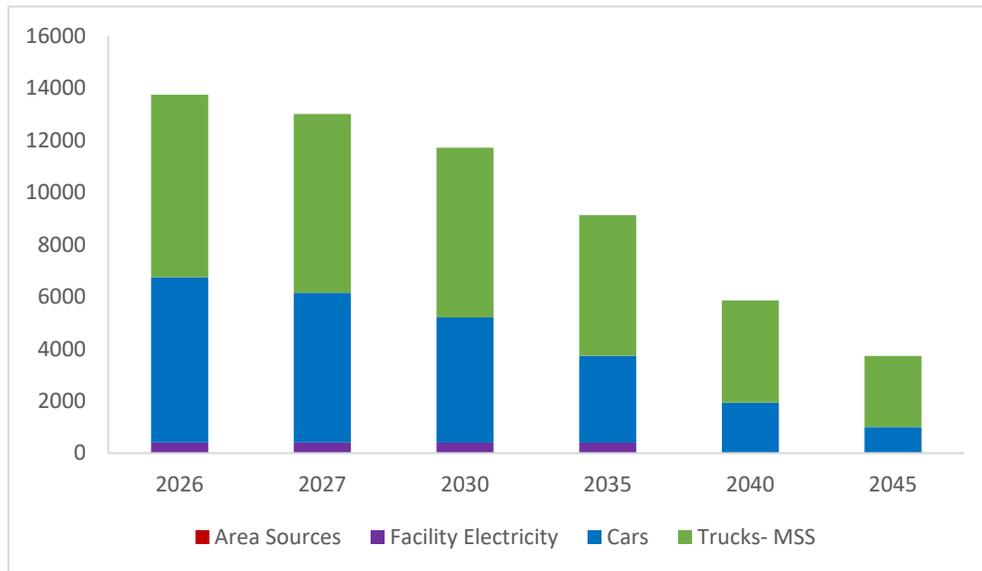


Figure 4.8-2: GHG Trends (MT CO₂e) based on Promulgated Regulations and Mobile Source Strategy for San Joaquin Valley On-road Heavy-Duty Trucks

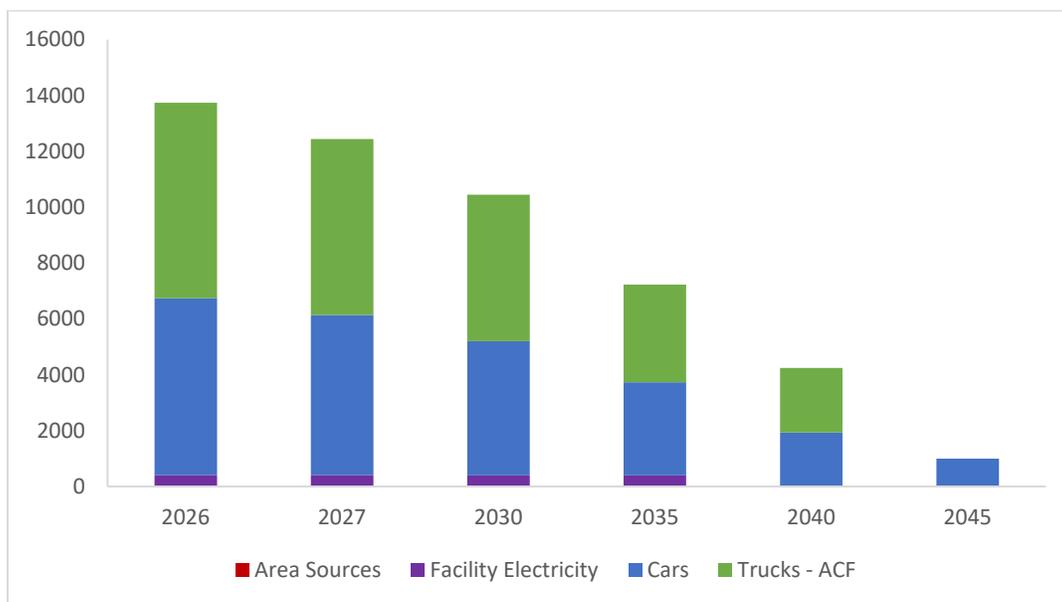


FIGURE 4.8-3: GHG TRENDS (MT CO₂E) BASED ON PROMULGATED REGULATIONS AND ADVANCED CLEAN FLEET REGULATION FOR DAY CAB TRACTOR TRAILER TRUCKS

Conclusion

Table 4.8-3, Construction Greenhouse Gas Emissions and **Table 4.8-4, Unmitigated Project Operational Greenhouse Gases 2026** provide an estimate of construction and operation GHG emissions. The proposed project would use zero-emission off-road equipment as part of **Mitigation Measure MM 4.8-1** and would limit GHG emissions from cold storage use or TRUs as part of **Mitigation Measure MM 4.8-2**, both of which would reduce the proposed project's GHG emissions. In addition, operation emissions are expected to decrease given future regulations related to energy efficiency, water efficiency, and mobile source emissions. However, when compared to relevant climate goals related to reducing GHG emissions, as discussed above, the proposed project's VMT per capita, thus its mobile source emissions from employee VMT, are inconsistent with the targets set forth in the RTP/SCS. Although the proposed project would be required to implement TDM program to reduce VMT, it is unclear whether the TDM program would reduce project VMT to below thresholds. Therefore, the proposed project would have a significant and unavoidable impact related to GHG emissions.

Mitigation Measures

Implement **Mitigation Measure MM 4.17-2** (see **Section 4.17, Transportation**) and

MM 4.8-1 Only electric-powered off-road equipment (e.g., forklifts, indoor material handling equipment, etc.) shall be utilized on-site for daily warehouse and business operations. The project developer/facility owner shall disclose this requirement to all tenants/business entities prior to the signing of any lease agreement. In addition, the limitation on using only electric-powered off-road equipment shall be included in all leasing agreements.

MM-4.8-2 The warehouse usage is limited to dry storage. If the warehouse is used for cold storage uses, then prior to the issuance of occupancy permits, the Planning Department shall confirm that tenant lease agreements include contractual language that requires all Transport Refrigeration Units (TRUs) entering the project site be plug-in capable. Building systems should 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.

Level of Significance after Mitigation

Despite implementation of **Mitigation Measures MM 4.17-2, MM 4.8-1, and MM 4.8-2**, impacts would be significant and unavoidable.

Impact 4.8-2: The project would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gas.

As discussed above, impacts were evaluated based on whether the proposed 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.

Consistency with Local GHG Reduction Plans

There are no applicable local GHG reduction plans in place for the proposed project to conflict with.

Consistency with Regional GHG Reduction Plans

As explained in Appendix B of this Draft EIR, the ARB set targets for Kern COG’s GHG emissions reductions from passenger vehicles and light-duty trucks at 9 percent per capita by 2020 and 15 percent per capita by 2035 as compared to 2005. This reduction target is reflected in Kern COG’s 2022 RTP/SCS (Kern COG 2022). Accordingly, the RTP/SCS determines the VMT per capita target in 2020 would be 21.65 which reflects the ARB targets per SB 375. The existing County average VMT in the traffic study is 23.29.

According to the proposed project’s traffic study, the proposed project would have a daily employee VMT of 26.23, exceeding the 15 percent reduction threshold of 19.80 miles. Although the proposed project would be required to implement a TDM program to reduce VMT, it is unclear whether the TDM program would reduce project VMT to below this threshold. Therefore, the proposed project would not be consistent with the VMT reduction targets set forth in the Kern COG RTP/SCS. All mitigation with a nexus to this impact have been identified as part of the VMT analysis.

Consistency with 2017 and 2022 Scoping Plans

A project comparison for consistency with measures for the 2017 and 2022 Scoping Plan updates addresses alignment with the State’s planning goals and milestones under SB 32 and AB 1279, respectively (ARB 2017, 2022a).

An evaluation of the proposed project’s consistency with the Scoping Plan serves as a roadmap for evaluating a project’s current design, and to determine whether it complies with current policies and is in compliance with planned reduction measures for GHG emissions. The comparison of a project design to Scoping Plan proposal is not by itself a metric for determining project-level significance, but a step in showing how the project supports current regulations and is aligned with future GHG reduction strategies in development stages. The proposed project would comply with all regulations adopted in furtherance of the Scoping Plan to the extent required by law and to the extent that they are applicable to the proposed project.

Table 4.8-5, Proposed Project Consistency with 2017 Scoping Plan Greenhouse Gas Emission Reduction Strategies and **Table 4.8-6, Proposed Project Consistency with 2022 Scoping Plan Greenhouse Gas Emission Reduction Strategies** summarize the measures included 2017 and 2022 Scoping Plans, respectively, and analyzes project consistency compared to these elements.

TABLE 4.8-5: PROPOSED PROJECT CONSISTENCY WITH 2017 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Scoping Plan Measure	Project Consistency
SB 350 50 percent Renewable Mandate. Utilities subject to the legislation will be required to increase their renewable energy mix from 33 percent in 2020 to 50 percent in 2030.	Not applicable. This measure would apply to utilities and not to individual development projects. The proposed project would purchase electricity from a utility subject to the SB 350 Renewable Mandate and the RPS requirements. SB 100 has increased the 2030 RPS standards to 60 percent by 2030, superseding the increase required by SB 350.

TABLE 4.8-5: PROPOSED PROJECT CONSISTENCY WITH 2017 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Scoping Plan Measure	Project Consistency
<p>SB 350 Double Building Energy Efficiency by 2030. This is equivalent to a 20 percent reduction from 2014 building energy usage compared to current projected 2030 levels.</p>	<p>Not applicable. This measure applies to existing buildings. New structures are required to comply with Title 24 Energy Efficiency Standards that are expected to increase in stringency over time. The proposed project would comply with the applicable Title 24 Energy Efficiency Standards in effect at the time building permits are received.</p>
<p>Low Carbon Fuel Standard. This measure requires fuel providers to meet an 18 percent reduction in carbon content by 2030.</p>	<p>Not applicable. This is a Statewide measure that cannot be implemented by a project applicant or lead agency. However, vehicles accessing the project site would benefit from the standards.</p>
<p>Mobile Source Strategy (Cleaner Technology and Fuels Scenario). Vehicle manufacturers will be required to meet existing regulations mandated by the LEV III and Heavy-Duty Vehicle programs. The strategy includes a goal of having 4.2 million ZEVs on the road by 2030 and increasing numbers of ZEV trucks and buses.</p>	<p>Consistent. The proposed project is industrial in nature and would support truck and freight operations. It is expected that deliveries throughout the State would be made with an increasing number of ZEV delivery trucks, including trips that would be coming to and from the project site.</p> <p>The proposed project would not inhibit the Mobile Source Strategy as the proposed project would include infrastructure for EV charging stations, into a minimum of 20 percent of all vehicle parking spaces (including parking for trucks), consistent with the applicable California Green Building Standards Code Tier 1 Nonresidential Mandatory Measure.</p>
<p>Sustainable Freight Action Plan. The plan’s target is to improve freight system efficiency 25 percent by increasing the value of goods and services produced from the freight sector, relative to the amount of carbon that it produces by 2030. This would be achieved by deploying over 100,000 freight vehicles and equipment capable of zero-emission operation and maximize near-zero-emission freight vehicles and equipment powered by renewable energy by 2030.</p>	<p>Consistent with mitigation. This measure applies to owners and operators of trucks and freight operations. The proposed project is industrial in nature and would support truck and freight operations. The proposed project would include infrastructure for EV charging stations, including for trucks, into a minimum of 20 percent of all vehicle parking spaces (including parking for trucks), consistent with the applicable California Green Building Standards Code Tier 1 Nonresidential Mandatory Measure. Additionally, the project would use zero-emissions material handling equipment (e.g., forklifts, indoor material handling equipment, etc.) on-site for daily warehouse and business operations. The limitation of using only electric-powered off-road equipment would be included in all leasing agreements. This is incorporated into the Project Description as Mitigation Measure MM 4.8-1. Further,</p>

TABLE 4.8-5: PROPOSED PROJECT CONSISTENCY WITH 2017 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Scoping Plan Measure	Project Consistency
	<p>implementation of Mitigation Measure MM 4.8-2 requires that the tenant lease agreements include contractual language that requires all Transport Refrigeration Units (TRUs) entering the project site be plug-in capable. Electrical hookups shall be provided as part of the tenant improvements for any tenant that requires cold storage. Therefore, the proposed project would support the sustainable Freight Action Plan by providing EV charging infrastructure and zero-emission support equipment.</p>
<p>Short-Lived Climate Pollutant (SLCP) Reduction Strategy. The strategy requires the reduction of SLCPs by 40 percent from 2013 levels by 2030 and the reduction of black carbon by 50 percent from 2013 levels by 2030.</p>	<p>Consistent. The proposed project would not include major sources of black carbon. This measure revolves around ARB’s SLCP Reduction Strategy that was released in April 2016 as a result of SB 650. SB 650 required the State to develop a strategy to reduce emissions of SLCPs. Diesel particulate matter (DPM) reductions have come from strong efforts to reduce on-road vehicle emissions. Car and truck engines used to be the largest sources of anthropogenic black carbon emissions in California, but the State’s existing air quality policies would virtually eliminate black carbon emissions from on-road diesel engines within 10 years. These policies are based on existing technologies.</p>
<p>SB 375 Sustainable Communities Strategies. Requires Regional Transportation Plans to include a Sustainable Communities Strategy for reduction of per capita vehicle miles traveled.</p>	<p>Not applicable. The proposed project does not include the development of a Regional Transportation Plan (RTP).</p>
<p>Post-2020 Cap-and-Trade Program. The Post 2020 Cap-and-Trade Program continues the existing program for another 10 years. The Cap-and-Trade Program applies to large industrial sources such as power plants, refineries, and cement manufacturers.</p>	<p>Not applicable. The proposed project is not one targeted by the cap-and-trade system regulations, and, therefore, this measure does not apply to the proposed project. However, the post-2020 Cap-and-Trade Program indirectly affects people and entities who use the products and services produced by the regulated industrial sources when increased cost of products or services (such as electricity and fuel) are transferred to the consumers.</p>
<p>Natural and Working Lands Action Plan. The ARB is working in coordination with several other agencies at the federal, State, and local levels, stakeholders, and with the public, to develop measures as outlined in the Scoping Plan Update and the Governor’s Executive Order B-30-15 to reduce GHG emissions and to cultivate net carbon</p>	<p>Not applicable. California’s natural and working land includes cropland. Although the proposed project would convert existing agricultural uses to industrial use, it would not conflict with the ARB’s Natural and Working Lands Action Plan, which, among other initiatives, aims to permanently</p>

TABLE 4.8-5: PROPOSED PROJECT CONSISTENCY WITH 2017 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Scoping Plan Measure	Project Consistency
sequestration potential for California’s natural and working land.	protect croplands through acquisition. Because the project site is private land, it is not part of the Action Plan initiatives and the proposed project would not conflict with the Action Plan.

SOURCE: FirstCarbon Solutions (FCS) 2023.

TABLE 4.8-6: PROPOSED PROJECT CONSISTENCY WITH 2022 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Scoping Plan Measure	Project Consistency
Light-Duty Vehicles: Smart Growth/Reduce Vehicle Miles Traveled. VMT per capita reduced 25 percent below 2019 levels by 2030, and 30 percent below 2019 levels by 2045.	Inconsistent. As explained above, the proposed project’s VMT would exceed the VMT per capita target set for Kern COG and reflected in the RTP/SCS. Therefore, the proposed project would not be consistent with this measure related to reducing VMT per capita.
Deploy ZEVs. Medium-Heavy and Heavy Heavy-Duty Trucks. This measure is supported by Executive Order N79-20 and plans in the AB 74 ITS Report: 100 percent of MD/HDV sales are ZEV by 2040.	<p>Consistent. Medium-heavy and heavy heavy-duty trucks would be compliant with truck Fuel Economy Standards: California Phase II GHG Standards. Infrastructure for the proposed project would be designed to support this transition to ZEV as per CalGREEN Building Code Standards. Priority Fleets utilizing the facility that are subject to the Advanced Clean Fleet Rule and meet ZEV fleet conversion milestones as specified by ARB. Fleets not covered under the Advanced Clean Fleet Rule would convert to ZEV trucks as truck manufacturers implement the Advanced Clean Truck Regulation.</p> <p>The Scoping Plan does not rely upon on VMT reductions from the freight and truck transportation sector.</p>

TABLE 4.8-5: PROPOSED PROJECT CONSISTENCY WITH 2017 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Scoping Plan Measure	Project Consistency
<p>Decarbonize buildings. All electric appliances beginning 2026 (residential) and 2029 (commercial), contributing to 6 million heat pumps installed Statewide by 2030.</p>	<p>Consistent. The proposed project would not utilize natural gas and support the States Building decarbonization initiatives.</p>
<p>Low Carbon Fuels for Transportation. Biomass supply is used to produce conventional and advanced biofuels, as well as hydrogen.</p>	<p>Consistent. Off-road construction equipment would utilize renewable diesel in compliance with the In-Use Off-Road rule. On-road diesel trucks would also utilize these fuels consistent with the Low Carbon Fuel Standard (LCFS).</p> <p>The proposed project would provide infrastructure for ZEV trucks and passenger vehicles for up to 20 percent of all vehicle parking spaces (including parking for trucks), consistent with the applicable California Green Building Standards Code Tier 1 Nonresidential Mandatory Measure.</p> <p>Additionally, implementation of Mitigation Measure MM 4.8-1 would support and facilitate the use of zero-emission support equipment. Implementation of Mitigation Measure MM 4.8-2 requires that the tenant lease agreements include contractual language that requires all TRUs entering the project site be plug-in capable. Therefore, the proposed project would support the sustainable Freight Action Plan by providing EV charging infrastructure and zero-emission support equipment.</p>
<p>Low Carbon Fuels for Fuels for Buildings and Industry. In 2030s renewable natural gas (RNG) blended in pipeline, ramping up to 2040. Dedicated hydrogen pipelines constructed to serve certain industrial clusters.</p>	<p>Not applicable. The proposed project would not utilize natural gas for building use.</p>
<p>Coordinate supply of liquid fossil fuels with declining CA fuel demand. Phaseout oil and gas extraction operations by 2045. Carbon Capture and Sequestration (CCS) on majority of petroleum refining operations by 2030. Interim goals are to reduce petroleum production reduced in line with its demand.</p>	<p>Not applicable. The proposed project is not related to the petroleum industry.</p>

TABLE 4.8-5: PROPOSED PROJECT CONSISTENCY WITH 2017 SCOPING PLAN GREENHOUSE GAS EMISSION REDUCTION STRATEGIES

Scoping Plan Measure	Project Consistency
<p>Generate clean electricity. Electric sector GHG target of 38 MMTCO₂e in 2030 and 31 MMTCO₂e in 2045. This GHG target is determined to meet the loads associated with the scenario and corresponds to meeting the 2021 SB 100 Joint Agency Report’s 100 percent of retail sales with eligible renewable and zero-carbon resources definition.</p>	<p>Not applicable. The proposed project would benefit indirectly from these goals; however, there are no actions related to the proposed project itself.</p>
<p>Decarbonize industrial energy supply. Electrification goals by industry sector specific to Food Industry, Agriculture, and Chemical and Allied Products and Pulp and Paper Industry for milestone years 2030 and 2045. Other Industrial Manufacturing: 0 percent energy electrified by 2030 and 50 percent by 2045.</p> <p>Construction Equipment: 25 percent energy demand electrified by 2030 and 75 percent by 2045.</p> <p>Retire all combined heat and power facilities by 2040.</p>	<p>Consistent. Construction equipment used for the proposed project would comply with ARB off-road regulations meeting milestones for electrification as required by regulations as promulgated. Starting in 2024, amendments to the off-road In-Use Diesel Rule require use of renewable diesel consistent with the 2022 Scoping Plan and implementing the LCFS.</p>
<p>Reduce non-combustion emissions. This involves two strategies targeting methane and HFCs.</p> <ul style="list-style-type: none"> • Increase capture of methane and from landfill and dairy digester and from the oil and gas infrastructure components. • Introduction of low GWP refrigerants introduced as building electrification increases mitigating HFC emissions. 	<p>Consistent. The proposed project would use low GWP refrigerants consistent with current California Significant New Alternatives Policy (SNAP) regulations. In addition, the proposed facility is assumed to be used for dry storage only (i.e., non-refrigerated use). Therefore, as part of Mitigation Measure MM 4.8-2, cold storage uses are prohibited on the project site unless additional conditions are met by the project and confirmed by the Planning Department.</p>
<p>Compensate for remaining emissions. This measure uses Carbon Dioxide Removal to compensate for remaining emissions.</p>	<p>Not applicable. This measure relates to remaining emissions and is not applicable at the individual project level.</p>

SOURCE: FirstCarbon Solutions (FCS) 2023.

As shown in **Table 4.8-5** and **Table 4.8-6** above, the proposed project is consistent with most of the applicable measures in the 2017 Scoping Plan and the 2022 Scoping Plan Update with incorporation of **Mitigation Measures MM 4.8-1** and **MM 4.8-2**. However, the proposed project would not achieve the VMT reduction as described in the 2017 Scoping Plan and therefore is not consistent with the Scoping Plan

in this regard. Therefore, the proposed project would not align with the State's planning goals and milestones under SB 32 and AB 1279. Impacts would be significant and unavoidable.

Consideration of Mitigation Measures

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 to offset or reduce global climate change impacts from a project. 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.

The Attorney General suggests measures that could be undertaken or funded by a diverse range of projects, related to energy efficiency; renewable energy; water conservation and efficiency; solid waste measures; land use measures; transportation and motor vehicles; and carbon offsets. However, most of the suggested measures would not be applicable to the proposed project, since they are more appropriate and applicable measures to reduce long-term operational GHG emissions.

The impacts on global warming and climate change are indirect, climate change is a worldwide phenomenon, and project-level emissions cannot be correlated with specific impacts based on currently available science. However, based on the analysis above, the proposed project would not align with the State's planning goals and milestones under SB 32 and AB 1279 due to the proposed project's VMT per capita. Feasible and enforceable mitigation with a nexus to the project's VMT impact were considered in the proposed project's VMT impact and in Section 4.17, *Transportation*. Although the proposed project would be required to implement a TDM program to reduce VMT, it is unclear whether the TDM program would reduce project VMT to the VMT reduction targets set forth in the Kern COG RTP/SCS. Therefore, the proposed project is expected to significantly contribute to global warming or climate change.

Mitigation Measures

Implement **Mitigation Measures MM 4.17-2** (see **Section 4.17, *Transportation and Traffic***), **MM 4.8-1**, and **MM 4.8-2**.

Level of Significance after Mitigation

Despite implementation of **Mitigation Measures MM 4.17-2, MM 4.8-1, and MM 4.8-2**, impacts would be significant and unavoidable.

Cumulative Setting, Impacts, and Mitigation Measures

Emissions of GHGs and their contribution to global climate change are considered a cumulative impact by definition. Therefore, the geographic extent of the proposed project's cumulative area of impact would be worldwide.

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. Although the proposed project is expected to emit GHGs, the emission of GHGs by a single project into the atmosphere is not itself necessarily an adverse environmental effect. Rather, it is the increased accumulation of GHG from more than one project and many sources in the atmosphere that may result in global climate change. The resultant consequences of that climate change can cause adverse environmental effects. A project's GHG emissions typically would be very small in comparison to state or global GHG emissions and, consequently, they would, in isolation, have no significant direct impact on climate change. However, as discussed above, while Kern County has not developed a quantified threshold of significance for GHG emissions, a project found to contribute to a net decrease in GHG emissions and found to be consistent with the adopted implementation of the ARB Climate Change Scoping Plan is presumed to have less-than-significant GHG impacts.

Based on the analyses provide above in **Impacts 4.8-1 and 4.8-2**, the proposed project is presumed to have significant and unavoidable GHG impacts even with implementation of **Mitigation Measures MM 4.8-1, MM 4.8-2, and MM 4.17-2** (see **Section 4.17, Transportation and Traffic**). Thus, the proposed project would have a cumulatively considerable impact on global climate change, and cumulative impacts would therefore be significant and unavoidable.

CEQA Guidelines Section 15130 notes that sometimes the only feasible mitigation for cumulative impacts may be to adopt ordinances or regulations rather than impose conditions on a project-by-project basis. Global climate change is this type of issue. GHG impacts are considered to be exclusively cumulative impacts; there are no non-cumulative GHG emission impacts from a climate change perspective (CAPCOA 2008). Causes and effects are not just regional or Statewide, they are worldwide. Therefore, the mitigation required at the project level represents all feasible and enforceable mitigation for the proposed project's cumulative impact; any other feasible reductions would be accomplished through compliance with regulations. Cumulative impacts of the proposed project on global climate change would be significant and unavoidable.

Mitigation Measures

Implement **Mitigation Measures MM 4.17-2** (see **Section 4.17, Transportation and Traffic**), **MM 4.8-1**, and **MM 4.8-2**.

Level of Significance after Mitigation

Despite Implementation of **Mitigation Measures MM 4.17-2** (see **Section 4.17, Transportation and Traffic**), **MM 4.8-1**, and **MM 4.8-2**, cumulative impacts would be significant and unavoidable.

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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 (Draft EIR) describes the affected environment and regulatory setting for hazards and hazardous materials at the project site and within the project vicinity. It also describes the proposed project's potential impacts on residences and other sensitive receptors that could be exposed to these hazards (other than geologic hazards; see Section 4.7, Geology and Soils, of this EIR for discussion on geologic hazards) and presents mitigation measures where applicable. Information in this section is based, in part, on the site-specific Phase I Environmental Site Assessment (Phase I ESA) (Geosyntec Consultants 2023), provided in Appendix F of this Draft EIR, and publicly available databases including the California Department of Toxic Substances Control's (DTSC) EnviroStor, California State Water Resources Control Board (State Water Board) GeoTracker, and the California Geologic Energy Management Division (CalGEM) [formerly the California Division of Oil, Gas, and Geothermal Resources (DOGGR)].

4.9.2 Environmental Setting

This section discusses the existing conditions related to hazards and hazardous materials in the project area and describes the environmental setting for hazardous materials and waste, emergency response, 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.

As described in **Chapter 3, Project Description**, the proposed project includes the development of a warehouse and distribution facility. The facility would primarily facilitate material handling equipment and warehouse uses. The proposed project would include the construction of an approximately 653,442-square-foot single-story warehouse and related improvements. Cold storage is not proposed as part of the proposed project. The warehouse would be exclusively truck-served, meaning it would be utilized by delivery vehicles.

Existing Setting

The project site is relatively flat, with an elevation of approximately 330 feet above mean sea level (AMSL), with elevation sloping gradually upward from north to south. The project site is currently used as an active agricultural field and has been historically covered by row crops. Land uses in the immediate area of the project site primarily consist of agriculture with Martin Feed, Inc. abutting the northwest corner of the site, a mix of row crops and grazing land predominantly surrounding the site, as well as some single-family residences and neighboring off-site agricultural facilities. The nearest single-family residence is located approximately 400 feet southwest of the project site. The closest school to the project site is the General Shafter School, located approximately 0.66 mile southeast of the project site. The nearest public airport to the project site is the Bakersfield Municipal Airport, located approximately 5.9 miles northeast of the

project site. State Route (SR) 99, the nearest highway, is located approximately 1 mile east of the project site. There are no buildings or structures on the site.

Historical Property Use

As part of the Phase I ESA, historical resources including aerial photographs, maps, reports, and interviews were reviewed to determine past land uses at the project site. Prior to being developed for agricultural use in 1956, the project site was undeveloped (Geosyntec Consultants 2023). According to the CalGEM Well Finder application, there are two inactive oil and gas wells on the project site (American Petroleum Institute [API] 0403053329 and 0403053330), both operated by Maranatha Petroleum, Inc. and both under lease listed as Houge. Both wells are listed as canceled, which typically occurs when an operator submits a notice of intention to drill a well, receives a permit but does not drill within the allotted time and, thus, the permit expires (Geosyntec Consultants 2023). According to a review of the DTSC EnviroStor database, there are no hazardous release sites located within a mile of the project site (DTSC 2023). The State Water Board GeoTracker database showed no listed release locations on the project site or in the surrounding vicinity (State Water Board 2023).

Hazardous Materials and Waste

A hazardous material is any substance that, because of its 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, the term “hazardous substance” refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity; (2) ignitability; (3) corrosiveness; and (4) reactivity (22 California Code of Regulations [CCR] 11, Article 3).

A hazardous material is defined 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 (22 CCR 66260.10).

Various forms of hazardous materials 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. As part of the site reconnaissance completed for the Phase I ESA, no hazardous materials or petroleum products were observed on the project site, with the exception of the natural gas pipeline which crosses through the northeast portion of the project site (Geosyntec Consultants 2023).

Recognized Environmental Concern (REC) is one of the terms used to identify environmental liability within the context of a Phase I ESA. The American Society for Testing and Materials (ASTM) defines an REC as “the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. *De minimis* conditions are not recognized environmental conditions.” A Phase I ESA was conducted for the project site and did not find evidence of an REC in connection with the project site. However, based on the observed agricultural usage of the project site, it is possible that hazardous pesticides or herbicides were used on the project site in the past.

No evidence of pesticide or herbicide usage was found as part of the Phase I ESA; therefore, this finding is considered a de minimis condition rather than a REC (Geosyntec Consultants 2023).

Increase in Ambient Temperatures

All exposed surfaces (e.g., houses, cars, rocks) absorb heat produced by the sun. A “heat island” effect is generated when cities cover miles of land with structures (e.g., concrete buildings and asphalt roads) which absorb and store significantly more heat during the day than undeveloped earth. Additionally, these cities are filled with energy-consuming devices (e.g., engines, appliances, and heating, ventilation, and air conditioning [HVAC] systems) that generate waste heat.

Therefore, the proposed project would generate marginal amounts of heat waste on the project site. However, there is nothing in the record to date that would indicate that the proposed project would increase ambient air temperatures at or around the project site.

Increased Noise

Noise from construction would be temporary over a period of approximately 16 months for the proposed project. The ambient noise regime in the project vicinity consists of undeveloped, industrial, and agricultural uses and is a relatively quiet noise environment. The nearest sensitive noise receptors to the project site are isolated residential land uses, with the nearest located approximately 375 feet southwest of the project site boundary. Because of the relatively quiet noise environment in the project area associated with the current undeveloped land uses, temporary or periodic increases in ambient noise levels caused by construction activities could occur near the project site. However, these increases would be temporary and, as discussed further in Section 4.13, *Noise*, of this Draft EIR, project construction would not cause a temporary or periodic increase in ambient noise levels at nearby sensitive receptors during the construction. Project construction noise levels at the nearest residences (located approximately 375 feet away and 0.21 mile away) would attenuate to well below the ambient noise levels.

Hazardous Materials Transportation

Highway 99 is the nearest highway, located approximately 1 mile east 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 to be used for the transportation of hazardous materials. Information on CHP requirements and regulatory authority is provided in Section 4.9.3, Regulatory Setting, below. The Kern County and Incorporated Cities Hazardous Waste Management Plan designates State and federally maintained roads as candidate Commercial Hazardous Waste Shipping Routes through the County, including SR-99. According to Section 2.5.4 of the Kern County General Plan Circulation Element, SR-99 is designated as an adopted commercial hazardous materials shipping route.

Airports

The nearest public airport to the project site is the Bakersfield Municipal Airport, located approximately 5.9 miles northeast of the project site. The closest private airport, Creekside Airport, is located in the City of Arvin, approximately 7.3 miles to the southeast of the project site. The project site is not located within any Airport Influence Area, per the Kern County Airport Land Use Compatibility Plan (ALUCP).

Fire Hazard Areas

The California Department of Forestry and Fire Prevention (CAL FIRE) identifies Fire Hazard Severity Zones (FHSZ) based on factors such as fuel, slope, and weather to identify the degree of fire hazard throughout the State (i.e., moderate, high, or very high). According to CAL FIRE, the project site is located within a Local Responsibility Area (LRA) (CAL FIRE 2022). The Kern County FHSZ Maps for the LRA identify the project site as LRA Unzoned (CAL FIRE 2007). Given this designation, the project site is outside of areas identified by CAL FIRE as having substantial or very high wildfire risk. The County's Community Wildfire Protection Plan (CWPP), adopted in March 2022, addresses hazards and risks of wildfire throughout the County in an effort to protect human life and reduce property loss due to wildfire.

Emergency Response

The proposed project would construct a new private road along the eastern and southern perimeter of the project site to connect Houghton Road and Wible Road. The road would be two lanes and designed to accommodate heavy trucks. Access to the project site would be provided via this new private road. In particular, if the project site needed to be evacuated, Houghton Road and Wible Road would be used to access SR-99. Additionally, there are no current or future plans to construct a fire suppression road within the project boundary.

4.9.3 Regulatory Setting

Federal

United States Environmental Protection Agency

The United States Environmental Protection Agency (EPA) was established in 1970 to consolidate in one agency a variety of federal research, monitoring, standard-setting, and enforcement activities 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 using 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. RCRA was amended in 1984 by the Hazardous and Solid Waste Act (HSWA), which affirmed and extended the “cradle to grave” system of regulating hazardous wastes.

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 (42 United States Code [USC] 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 Contingency Plan (NCP). The NCP (Title 40, Code of Federal Regulations [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 (SARA) on October 17, 1986.

Clean Water Act/Spill Prevention, Control, and Countermeasure Rule

The Clean Water Act (CWA) (33 USC 1251 *et seq.*, formerly known as the Federal Water Pollution Control Act of 1972) was enacted with the intent of restoring and maintaining the chemical, physical, and biological integrity of waters of the United States. As part of the CWA, the EPA oversees and enforces the Oil Pollution Prevention regulation contained in 40 Code of Federal Regulations 112, which is often referred to as the “SPCC rule” because the regulations describe the requirements for facilities to prepare, amend, and implement Spill Prevention, Control, and Countermeasure (SPCC) plans. A facility is subject to SPCC regulations if a single oil storage tank has a capacity greater than 660 gallons, or the total aboveground oil storage capacity exceeds 1,320 gallons, or the underground oil storage capacity exceeds 42,000 gallons and if, due to its location, the facility could reasonably be expected to discharge oil into or upon the “Navigable Waters” of the United States.

Other Regulations

Other federal regulations overseen by the EPA relevant to hazardous materials and environmental contamination include 40 Code of Federal Regulations Parts 100 to 149 (Water Programs), 40 Code of Federal Regulations Parts 239 to 259 (Solid Wastes), and 40 Code of Federal Regulations Parts 260 to 279 (Hazardous Waste). These regulations designate hazardous substances under the Federal Water Pollution Control Act; determine the reportable quantity for each substance that is designated as hazardous; and

establish quantities of designated substances equal to or greater than the reportable quantities that may be discharged into waters of the United States.

Occupational Safety and Health Administration

The Occupational Safety and Health Administration's (OSHA's) mission is to ensure the safety and health of workers in the United States by setting and enforcing standards; providing training, outreach, and education; establishing partnerships; and encouraging continual improvement in workplace safety and health. The OSHA staff establishes and enforces protective standards and reaches out to employers and employees through technical assistance and consultation programs. OSHA standards are listed in 29 Code of Federal Regulations 1910, which include preparation of Health and Safety Plans that identify potential hazards associated with a proposed land use and may provide appropriate mitigation measures as required. 29 Code of Federal Regulations Section 1910.120(e) requires all employees working on-site exposed to hazardous substances, health hazards, or safety hazards and their supervisors and management responsible for the site to receive training meeting the requirements of this paragraph before they are permitted to engage in hazardous waste operations that could expose them to hazardous substances, safety, or health hazards. These employees shall receive any necessary review training.

State

California Department of Conservation, Geologic Energy Management Division

CalGEM is the State agency responsible for supervising the drilling, operation, maintenance, plugging, and abandonment of oil, gas, and geothermal wells. CalGEM's regulatory program promotes the sensitive development of oil, natural gas, and geothermal resources in California through sound engineering practices, pollution prevention, and the implementation of public safety programs. CalGEM requires any construction above or near plugged or abandoned oil and gas wells to be avoided and remediation of wells to meet current CalGEM standards, including wells discovered during excavation or grading.

Hazardous Materials Release Response Plans and Inventory Act of 1985

The Hazardous Materials Release Response Plans and Inventory Act, also known as the Business Plan Act, 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 unsafe raw or unused materials that are part of a process or manufacturing step. They are not considered hazardous waste. Health concerns pertaining to the release of hazardous materials, however, are similar to those relating to hazardous waste. A Hazardous Materials Business Plan (HMBP) must be submitted to the local Certified Unified Program Agency (CUPA) (the Kern County Public Health Services Department/Environmental Health Division) if the facility handles, uses, or stores a hazardous material or mixture containing a hazardous material that has a quantity equal to or greater than 55 gallons of liquid, 500 pounds of a solid substance, or 200 cubic feet of compressed gas; a hazardous compressed gas in any amount; or hazardous waste in any amount. An HMBP must include the following:

- Inventory of hazardous materials at a facility;

- Emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; and
- Training for all new employees and annual training for all employees in safety procedures in the event of a release or threatened release of a hazardous material (Cal/OES 2014).

Hazardous Waste Control Act

The Hazardous Waste Control Act created the State Hazardous Waste Management Program, which is similar to but more stringent than the federal RCRA program. The act is implemented by regulations contained in Title 26 California Code of Regulations, which describes the following required aspects for the proper management of hazardous waste:

- Identification and classification;
- Generation and transportation;
- Design and permitting of recycling, treatment, storage, and disposal facilities;
- Treatment standards;
- Operation of facilities and staff training; and
- Closure of facilities and liability requirements.

These regulations list more than 800 materials that may be hazardous and establish criteria for identifying, packaging, and disposing of such waste. Under the Hazardous Waste Control Act and Title 26, the generator of hazardous waste must complete a manifest that accompanies the waste from generator to transporter to the ultimate disposal location. Copies of the manifest must be filed with the DTSC.

Unified Hazardous Waste and Hazardous Materials Management Regulatory Program

Senate Bill (SB) 1082 (1993) created the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), which requires the administrative consolidation of six hazardous materials and waste programs (Program Elements) under one agency, a CUPA. The Program Elements consolidated under the Unified Program are as follows:

- Hazardous Waste Generator and On-site Hazardous Waste Treatment Programs (i.e., Tiered Permitting);
- Aboveground Petroleum Storage Tank Program;
- Hazardous Materials Release Response Plans and Inventory Program (i.e., Hazardous Materials Disclosure or “Community-Right-To-Know”);
- California Accidental Release Prevention (Cal/ARP) Program;
- Underground Storage Tank (UST) Program; and
- Uniform Fire Code Plans and Inventory Requirements.

The Unified Program is intended to provide relief to businesses in complying with the overlapping and sometimes conflicting requirements of formerly independently managed programs. The Unified Program is implemented at the local government level by CUPAs. Most CUPAs have been established as a function of a local environmental health or fire department. Some CUPAs have contractual agreements with another local participating agency which implements one or more Program Elements in coordination with the

CUPA. The CUPA in Kern County is the Environmental Health Division of the Kern County Public Health Services Department.

California Code of Regulations–Hazardous Substances

Under California Code of Regulations Title 22, the term “hazardous substance” refers to both hazardous materials and hazardous wastes. Both of these are classified according to four properties: (1) toxicity; (2) ignitability; (3) corrosiveness; and (4) reactivity (22 CCR 11, Article 3). A hazardous material is defined 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 (22 CCR 66260.10).

California Code of Regulations Title 8 (Chapter 3.2, Article 5, Section 339) includes a list of identified hazardous substances. Hazardous materials in various forms can cause death; serious injury; long-lasting health effects; and damage to buildings, homes, and other property (Department of Homeland Security [DHS] 2023).

California Environmental Protection Agency

The California Environmental Protection Agency (Cal/EPA) was created in 1991 and unified California’s environmental authority in a single cabinet-level agency, bringing the California Air Resources Board (ARB), State Water Board, Regional Water Quality Control Board (RWQCB), California Department of Resources Recycling and Recovery (CalRecycle), DTSC, California Office of Environmental Health Hazard Assessment (OEHHA), and Department of Pesticide Regulation under one agency. These agencies were placed within the Cal/EPA “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 and to ensure public health, environmental quality, and economic vitality.

California Department of Toxic Substances and Control

The DTSC, a department of Cal/EPA, 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.

United States Code 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 State Water Board as having UST 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.

California Office of Emergency Services

In order to protect public health and safety and the environment, the California Office of Emergency Services (Cal/OES) is responsible for establishing and managing statewide standards for business and area plans relating to the handling and release, or threatened release, of hazardous materials. Cal/OES requires that basic information on hazardous materials handled, used, stored, or disposed of (including location, type, quantity, and health risks) be available to firefighters, public safety officers, and regulatory agencies. Typically, this information should be included in business plans in order to prevent or mitigate damage to the health and safety of persons and the environment from the release or threatened release of these materials into the workplace and environment. These regulations are covered under Chapter 6.95 of the California Health and Safety Code, Article 1—Hazardous Materials Release Response and Inventory Program (HSC §§ 25500–25520) and Article 2—Hazardous Materials Management (HSC §§ 25531–25543.3).

California Code of Regulations, Title 19, Public Safety, Division 2 (Office of Emergency Services), Chapter 4 (Hazardous Material Release Reporting, Inventory, and Response Plans), Article 4 (Minimum Standards for Business Plans) establishes minimum Statewide standards for HMBPs. These plans must include the following: (1) a hazardous material inventory in accordance with Sections 2729.2 to 2729.7, (2) emergency response plans and procedures in accordance with Section 2731, and (3) training program information in accordance with Section 2732. Business plans contain basic information on the location, type, quantity, and health risks of hazardous materials stored, used, or disposed of in the State. Each business will prepare an HMBP if that business uses, handles, or stores a hazardous material or an extremely hazardous material in quantities greater than or equal to the following:

- 500 pounds of a solid substance;
- 55 gallons of a liquid;
- 200 cubic feet of compressed gas;
- A hazardous compressed gas in any amount; or
- Hazardous waste in any quantity.

California Occupational Safety and Health Administration

California Occupational Safety and Health Administration (Cal/OSHA) is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR §§ 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.

California Highway Patrol

A valid Hazardous Materials Transportation License, issued by the CHP, is required by the laws and regulations of State of California Vehicle Code Section 3200.5 for transportation of either:

- Hazardous materials shipments for which the display of placards is required by State regulations; or
- Hazardous materials shipments of more than 500 pounds which would require placards if shipping greater amounts in the same manner.

Additional requirements on the transportation of explosives, inhalation hazards, and radioactive materials are enforced by the CHP under the authority of the State Vehicle Code. Transportation of explosives generally requires consistency with additional rules and regulations for routing, safe stopping distances, and inspection stops (14 CCR 6(1)(1150–1152.10)). Inhalation hazards face similar, more restrictive rules and regulations (13 CCR 6(2.5)(1157–1157.8)). Transportation of radioactive materials is restricted to specific safe routes.

Local

Construction and operation of the proposed project would be subject to policies and regulations contained within the general and specific plans, including the Metropolitan Bakersfield General Plan, Kern County Zoning Ordinance, and the Kern County Code of Building Regulations, which include policies pertaining to the avoidance of hazards and adverse effects related to hazardous materials. The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for hazards and hazardous materials applicable to the project are provided below. The Metropolitan Bakersfield General Plan contains additional policies, goals, and implementation measures that are more general in nature and are not specific to development such as the project. Therefore, they are not listed below but all policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan are incorporated by reference.

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 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 are also the City of Bakersfield adopted Sphere of Influence (SOI). The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for aesthetic hazards and hazardous materials applicable to the proposed project are provided below.

Chapter VIII: Safety/Public Safety

Goal

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 7 Enforce ordinances regulating the use/manufacture/sale/transportation/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 effects to human health as required by the Department of Environmental Services.

2020 Kern County Multi-Jurisdiction Hazard Mitigation Plan

The 2020 update to the Kern County Multi-Jurisdictional Hazard Mitigation Plan (Kern MJHMP) was approved by the Federal Emergency Management Agency (FEMA) on April 9, 2021. The purpose of the Kern MJHMP is to guide County and City officials, Special District Managers, School District Administrators, and Water and Wastewater District Managers in protecting people and property within the County from the impacts of natural disasters and hazard events. In compliance with the Disaster Mitigation Act of 2000 (DMA 2000), the MJHMP must be updated every 5 years (KCFD Office of Emergency Services 2020).

Kern County Emergency Operations Plan

The Kern County Emergency Operations Plan (EOP), adopted 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, 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).

Kern County Community Wildfire Protection Plan

The Kern County CWPP was developed in response to the federal Healthy Forests Restoration Act (HFRA). 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 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 and the 2021 International Fire Code with some amendments. The purpose of the Kern County 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, and/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; and the installation and maintenance of adequate means of egress and to provide for the issuance of permits and collection of fees.

Kern County Fire Department 2021 Strategic Fire Plan

The Kern County Fire Department (KCFD) Unit Strategic Fire Plan, updated in April 2022, is the most current document that assesses the wildland fire situation throughout the State Responsibility Area (SRA) within the County. Similar to other plans, this document includes stakeholder contributions and priorities and identifies strategic targets for pre-fire solutions as defined by the people who live and work within areas susceptible to fire hazards. The plan provides for a comprehensive analysis of fire hazards, assets at risk, and level of services to systematically assess the existing levels of wildland protection services and identifies high-risk and high-value areas that are potential locations for costly and damaging wildfires. The plan gives an overview of KCFD Battalions, ranks these areas in terms of priority needs, and identifies the areas of SRA. According to the plan, 69 percent of Kern County areas are within an SRA. The County is broken up into six different fuel management areas: Tehachapi, Western Kern, North Kern, Mt. Pinos Communities, Valley/Foothill, and Kern River Valley. The project site is located within Battalion 5 (Mt. Pinos Communities), which is not within a fire hazard severity zone within the Mt. Pinos Communities fire plan management area (KCFD 2022).

Kern County Department of Environmental Health Services Department

The Kern County Environmental Health Services Department is the CUPA for the project area, which provides site inspections of hazardous materials programs (above ground storage tanks, USTs, hazardous waste treatment, hazardous waste generators, hazardous materials management and response plans, and the California Fire Code). This Department also provides emergency response to hazardous materials events, performing health and environmental risk assessment and substance identification.

Kern County and Incorporated Cities Hazardous Waste Management Plan

In response to the growing public concern regarding hazardous waste management, Assembly Bill (AB) 2948 enacted legislation authorizing 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 State 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 Health and Safety Code Section 25135.7(b) and, thus, must be consistent with all other aspects of the Kern County General Plan. According to the Metropolitan Bakersfield General Plan, the Hazardous Waste Plan serves as the policy document guiding all facers of hazardous waste within the Metropolitan Bakerfield General Plan

planning area. State law requires that the Metropolitan Bakersfield General Plan be internally consistent, and consistent with all other community plans, including the Hazardous Waste Plan.

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 on federal lands. The purpose of the Hazardous Waste Plan is to coordinate local implementation of a regional action to affect 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 hazardous waste from small-quantity 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.

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) project components that could result in environmental contamination.

The proposed project's potential impacts to hazards and hazardous materials have been evaluated using a variety of resources, including the Phase I ESA and public records and databases maintained by DTSC, State Water Board, and CalGEM. The proposed project was evaluated for adequate accessibility for emergency responders based on the project location, construction plans, and site plans, and any potential alterations to existing evacuation routes and plans. 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. Using the aforementioned resources and professional judgment, impacts were analyzed according to 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 CEQA Guidelines Appendix G, to determine whether a project could potentially have a significant adverse effect related to hazards and hazardous materials.

A project would have a significant impact related to hazards and hazardous materials if it would:

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- b. 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.

- c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.
- d. 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.
- e. For a project located within the adopted Kern County Airport Land Use Compatibility Plan, result in a safety hazard or excessive noise for people residing or working in the project area.
- f. Impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.
- g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.
- h. 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:
 - 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.

Project Impacts

Impact 4.9-1: The project could 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 (warehouse building and associated improvements) 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 proposed project would occur during the temporary construction period. Likely uses during construction would include cleaning fluids, solvents, petroleum products, dust palliative, and herbicides. Some solid hazardous waste, such as welding materials and dried paint, may also be generated during construction. 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. During construction of the project, material safety data sheets for all applicable materials present at the site would be made readily available to on-site personnel in accordance with required Best Management Practices (BMPs) as part of a Storm Water Pollution Prevention Plan (SWPPP) (see Section 4.10, *Hydrology and Water Quality*). Workers would be trained to properly identify and handle all hazardous materials, and hazardous waste would either be 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. The project proponent may participate in the Kern County Public Works Department's Conditionally Exempt Small Quantity Generator (CESQG) Program, if qualifying. Any qualifying hazardous waste would be transported to the Kern County Special Waste Facility in Bakersfield, California, a fully permitted hazardous waste facility, licensed to receive, store, and transport a variety of hazardous streams for disposal.

During construction, non-hazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets located at a reasonably accessible on-site location. Compliance with applicable regulations would ensure that construction of the project would not create a significant hazard to the public or the environment through the transport and disposal of hazardous materials. Implementation of **Mitigation Measures MM 4.9-14** and **MM 4.19-9** (see **Section 4.19, Utilities and Service Systems**), would require the project develop a Maintenance, Trash Abatement, and Pest Management Program to ensure debris and waste generated be recycled to the extent feasible during construction and operation, as well as the designation of a Recycling Coordinator to facilitate recycling of all waste through coordination with the on-site contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes. Implementation of **Mitigation Measures MM 4.9-14** and **MM 4.19-9** would further reduce already less than significant waste impacts to a less than significant level.

Hazardous materials such as petroleum fuels and lubricants used on field equipment would be subject to the Material Disposal and Solid Waste Management Plan, the SPCC plan, and other measures to limit releases of hazardous materials and wastes per **Mitigation Measure MM 4.9-1** (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. The disposal of any oils or lubricants would be 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.

The Phase I ESA prepared for the project site did not identify RECs or Controlled Recognized Environmental Conditions (CRECs). However, the Phase I ESA concluded that the historical agricultural land use on-site since the mid-1950s indicates the possibility of hazardous pesticides or herbicides being present. Despite historical site documents indicating these agricultural purposes, there was no evidence of pesticide or herbicide usage found as part of the site survey for the Phase I ESA (Geosyntec Consultants 2023). Therefore, despite the historical recognized conditions at the project site, it was concluded that the surface soils have not been adversely affected and potential impacts are less than significant.

Operation

Operations and maintenance activities associated with facilities would require very limited use of hazardous materials and generation of hazardous waste, such as paint, solvents, cleaners, and waste oil. As discussed in **Chapter 3, Project Description**, workers would be trained to properly identify and handle all hazardous wastes. Fuels and lubricants used in operations would be subject to the SPCC prepared for the proposed project. Furthermore, any hazardous materials that would be used would be stored on-site and in designated areas in accordance with an HMBP (see below), in areas inaccessible to the public.

Primary operations and maintenance activities that would occur on the project site during operation would consist of warehouse distribution processing for packages and orders but would also include, without limitation: administration and reporting; semi-annual and annual services; site security and management; additional communication protocol; and periodic repair and maintenance of warehouse facilities.

Vehicles used during standard operations and maintenance would include delivery vehicles, trucks (pickup, flatbed), forklifts, pallet jacks, and loaders for routine and unscheduled maintenance. Large heavy-haul transport equipment and cranes may be brought to the project site infrequently for equipment repair or replacement. Long-term maintenance and equipment replacement would be scheduled in accordance with manufacturer recommendations. Implementation of **Mitigation Measure MM 4.9-2** would be required to ensure any potential on-site presence hazardous materials be properly stored and necessary Material Safety Data sheets corresponding to such hazardous materials be maintained. **Mitigation Measure MM 4.9-3**, which requires the preparation of an HMBP that would describe proper handling, storage, transport, and disposal techniques and methods to be used to avoid spills and minimize impacts in the event of a spill, would ensure that all handling, storage, and disposal of hazardous materials would be conducted in accordance with proven practices to minimize exposure to workers or the public.

Small quantities of dust palliatives and herbicides, if used during operations to control landscaping vegetation, may be transported to the project site. These materials would be documented, regulated and stored in appropriate containers in accordance with the **Mitigation Measure MM 4.9-2** and HMBP required by **Mitigation Measure MM 4.9-3**.

There are no designated routes for the transport of hazardous materials located on or immediately adjacent to the project site; the closest route is SR-99. Compliance with applicable California Health and Safety Code Section 25316 and Kern County regulations would require the preparation of an HMBP and submission of the HMBP to the Kern County Public Health Services Department for review and approval. This HMBP would delineate storage areas for hazardous material and hazardous waste; describe proper handling, storage, 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. As a result, operation of the proposed project would not create a significant hazard to the public or the environment through the use, storage, and transport of hazardous materials and impacts would be less than significant. Implementation of Mitigation Measures **MM 4.9-1 through MM 4.9-3** listed below and **MM 4.19-9** described in **Section 4.19, Utilities and Service Systems** would further reduce impacts related to hazards.

Mitigation Measures

Implement **Mitigation Measure MM 4.19-9** (see **Section 4.19, Utilities and Service Systems** for full mitigation measure) as well as **Mitigation Measures MM 4.9-1 through MM 4.9-3** listed below.

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 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 any hazardous materials or waste.

MM 4.9-3 During the life of the project, the project operator shall prepare and maintain a Hazardous Materials Business Plan (HMBP), as applicable, pursuant to Article 1 and Article 2 of California Health and Safety Code 6.95 and in accordance with Kern County Ordinance Code 8.04.030, by submitting all the required information to the California Environmental Reporting System at <http://cers.calepa.ca.gov/> for review and acceptance by the Kern County Environmental Health Services Department/Hazardous Materials Section. The HMBP shall:

- a. Delineate hazardous material and hazardous waste storage areas.
- b. Describe proper handling, storage, transport, and disposal techniques.
- c. Describe methods to be used to avoid spills and minimize impacts in the event of a spill.
- d. Describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction and operation.
- e. Establish public and agency notification procedures for spills and other emergencies including fires.
- f. Include procedures to avoid or minimize dust from existing residual pesticides and herbicides that may be present on the site.

The project applicant shall ensure that all contractors working on the proposed project are familiar with the facility's HMBP as well as ensure that one copy is available at the project site at all times. In addition, a copy of the accepted HMBP from California Environmental Reporting System shall be submitted to the Kern County Planning and Natural Resources Department for inclusion in the proposed projects permanent record.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.9-1** through **MM 4.9-3** and **MM 4.19-9** (see **Section 4.19, Utilities and Service Systems** for full mitigation measure), 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

Construction activities required for the project would involve trenching, excavation, grading, and other ground-disturbing activities. Construction activities would temporarily require use of equipment, such as trucks, excavators, and other powered equipment, and would use potentially hazardous materials such as

fuels (gasoline and diesel) and lubricants (oils and greases). In addition, construction may include the use of cleaning fluids, solvents, petroleum products, dust palliative, and herbicides. Some solid hazardous waste, such as welding materials and dried paint, may also be generated during construction. Such materials would be used in quantities typically associated with construction of the proposed project and would be transported, handled, stored, and disposed of in accordance with applicable laws and regulations and manufacturers' instructions. An accidental release of hazardous materials could result in a significant hazard to the public or the environment. Implementation of **Mitigation Measure MM 4.7-8** (see **Section 4.7, *Geology and Soils*** for full mitigation measure) would ensure BMPs are incorporated related to waste management, and implementation of the HMBP outlined in MM 4.9-3 as well as the required implementation of a SPCC per MM 4.9-1 above 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, which would reduce this impact to a less than significant level.

Additionally, **Mitigation Measures MM 4.9-4 through MM 4.9-10** include a series of pre-construction surveys and precautionary remediation measures to be undertaken. In addition to the general BMPs in the event of unknown hazardous materials contained in **Mitigation Measure MM 4.9-4**, **MM 4.9-5** includes inspection of all utility poles for polychlorinated biphenyls and coordination with PG&E for the continued monitoring of all pole-mounted transformers. According to CalGEM, the project site is not located within a known active oil production field but does include two canceled exploratory oil wells located within the project boundary (CalGEM 2023). Based on existing records, no well evidence of an oil or gas well was observed and the wells were canceled as of May 2021 (Geosyntec Consultants 2023). Therefore, there are no wells located within the project site. However, **Mitigation Measures MM 4.9-6 and MM 4.9-7** include precautionary and ongoing measures to confirm the abandonment of the known prospect wells on-site, as well as BMPs in the event of the discovery of an unknown well during construction activities, reducing impacts to a less than significant level.

Mitigation Measure MM 4.9-8 and MM 4.9-9 ensure less than significant impacts regarding underground facilities and pipelines, requiring Underground Service Alert One-call center to be contacted at least 2 days prior to any ground-disturbing activities, and protocols in the event of an accidental pipeline rupture during excavation and construction activities. No excavation activities would be permitted without a Dig Alert ticket number from the Underground Service Alert One-call center. In the event of the discovery of any asbestos-containing materials, especially during excavation, and construction, **Mitigation Measure MM 4.9-12** includes procedures to contact and comply with the San Joaquin Valley Air Pollution Control District. Impacts would be reduced to a less than significant.

Despite the relatively open spaces surrounding the project site, 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 grading of the site, the application of herbicides, or other construction or operation processes if hazardous material is not used appropriately during construction. Implementation of **Mitigation Measures MM 4.9-3 through MM 4.9-9** listed above, as well as **MM 4.9-11** which regulates the use of herbicides as described below would reduce impacts related to sensitive receptors to a less than significant level.

Operation

The proposed project would produce a small amount of hazardous waste associated with maintenance activities during operation, which would include typical refuse generated by office and warehouse uses.

The hazardous materials that would be present in the proposed warehouse facility would be contained within specifications that follow applicable federal, State, and local requirements. OSHA requirements call for the inclusion of appropriate ventilation, acid resistant materials, and presence of spill protection supplies.

Mitigation Measure MM 4.10 and **MM 4.9-11** would protect water resources within the project site. Under **Mitigation Measure MM 4.9-10**, any water wells on the project site not used for industrial or irrigation uses would be destroyed in accordance with the California Department of Water Resources and Kern County Environmental Health Services Division. Additionally, **MM 4.9-11** would require the applicant would be required to follow all California Department of Fish and Wildlife (CDFW) and United States Fish and Wildlife Service (USFWS) regulations, along with additional BMPS, in the use of herbicides on the project site during all construction and operation activities.

Removal and/or maintenance of vegetation may require herbicide use during both construction and operation. If not handled properly, use of these products could create a hazard to the public (construction workers, maintenance employees, and nearby residences), resulting in a potentially significant impact. As described above, **Mitigation Measure MM 4.9-12** would reduce impacts related to use of herbicides to a less than significant level.

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. The closest designated route for the transport of hazardous materials is SR-99, which is located approximately 1 mile east of the project site. Adherence to regulations and standard protocols during the storage, transportation, and usage of any hazardous materials would minimize and avoid the potential for significant impacts related to upset and accident conditions.

Overall, adherence to regulations and standard protocols during the storage, transportation, and usage of any hazardous materials and implementation of **Mitigation Measures MM 4.7-8** (see **Section 4.7, Geology and Soils**), and **MM 4.9-1** through **MM 4.9-12** during construction and operation of the proposed project would minimize or reduce potential impacts related to reasonably foreseeable upset and accident conditions involving the release of hazardous materials to a less than significant level.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.7-8** (see **Section 4.7, Geology and Soils**) and **MM 4.9-1 through MM 9-3** as provided above, as well as:

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:

All work shall immediately stop in the vicinity of the suspected contaminant;

Project Construction Manager shall be notified;

Area(s) shall be secured as directed by the Project Construction Manager;

Notification shall be made to the Kern County Environmental Health Services Division/Hazardous Materials Section for consultation, assessment, and appropriate actions; and,

Copies of all notifications and correspondence shall be submitted to the Kern County Planning and Natural Resources Department

MM 4.9-5 Prior to issuance of the grading permit, a qualified hazardous materials specialist shall inspect each power pole on-site with a transformer. Those containing polychlorinated biphenyls shall be removed by the hazardous specialist and disposed of at an appropriate hazardous materials disposal site to the satisfaction of the Department of Toxic Substances Control (DTSC). The hazardous materials specialist shall provide a short report to the Kern County Planning and Natural Resources Department and the Kern County Environmental Health Services Division/Hazardous Materials Section for review and approval.

Prior to construction, Pacific Gas and Electric Company (PG&E) shall be contacted regarding the disposition of pole-mounted transformers. In the event of a future release or leak of insulating fluids from any of the pole-mounted transformers, PG&E shall be contacted for their removal or replacement.

MM 4.9-6 Prior to start of construction, the abandoned petroleum prospect well shall be located, exposed, and re-abandoned, if required, to conform to the current abandonment requirements of the California Department of Conservation, Division of Oil, Gas and Geothermal Resources (CalGEM) and the Kern County Department of Environmental Health Services.

MM 4.9-7 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 Department of Oil, Gas and Geothermal Resources will be contacted to inspect and approve any remediation required.

MM 4.9-8 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 28 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 the California Department of Transportation (Caltrans).

MM 4.9-9 If a rupturing of a pipeline should 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 indicated an emergency situation and 9-1-1 should be dialed. If an emergency is not indicated, the Kern County Fire Department Greenfield Station 52, located at 312 Taft Highway, should be contacted at 661.834,5144. Non-Emergency telephone numbers for the Kern County Fire Department number 661.324.6551 and the project proponent shall follow all safety and cleanup regulations.

MM 4.9-10 If the on-site water wells are not to be used for irrigation or industrial purposes, they 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 4.9-11** The project applicant/operator shall continuously comply with the following:
- a. 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.
 - b. Herbicides shall be mixed and applied in conformance with the manufacturer's directions.
 - c. The herbicide applicator shall be equipped with splash protection clothing and gear, chemical resistant gloves, chemical spill/splash wash supplies, and 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.
 - d. Products identified as non-toxic to birds and small mammals shall be used if nests or dens are observed; and herbicides shall not be applied if it is raining at the site, rain is imminent, or the target area has puddles or standing water.
 - e. Herbicides shall not be applied when wind velocity exceeds 10 miles per hour. If spray is observed to be drifting to a non-target location, spraying shall be discontinued until conditions causing the drift have abated.
 - f. A written record of all herbicide applications on the site, including dates and amounts, shall be furnished annually to the Kern County Planning and Natural Resources Department.

- MM 4.9-12** If asbestos-containing materials are identified during construction (particularly in the concrete irrigation (transite) pipe located on-site, then 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 **Mitigation Measures MM 4.7-8**, (see **Section 4.7, *Geology and Soils***) and **MM 4.9-1** through **MM 4.9-12**, impacts would be less than significant.

Impact 4.9-3: The project would emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.

The nearest school to the project is General Shafter School, located approximately 0.66 mile southeast of the project site. The proposed project would not emit hazardous materials or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. Project-related infrastructure would not emit hazardous materials or involve handling hazardous or acutely

hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. Therefore, there would be no impact.

Mitigation Measures

No mitigation would be required.

Level of Significance

No impact.

Impact 4.9-4: The project would not be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, create a significant hazard to the public or the environment.

As discussed above, the project site is not identified in any of the California hazardous materials databases. Searches were completed for the parcels within the project site in the following hazardous materials lists: Cal/EPA's Cortese List, including the DTSC's EnviroStor database of hazardous substances release sites; and GeoTracker, the California database of leaking underground storage tanks (DTSC 2023; State Water Board 2023). Finally, there are no active Cease and Desist Orders or Clean Up and Abatement Orders for hazardous materials/facilities in the immediate project vicinity of the project site (State Water Board 2019). According to records kept by the CalGEM, two oil wells were identified on the project site (CalGEM 2023). These wells are not listed as active but rather as canceled. Because of the project not being located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5, no potential of creating a significant hazard to the public or the environment as a result is possible and, therefore, no impact would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance

No impact.

Impact 4.9-5: The project would not 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 Compatibility Plan.

The nearest public airport identified by the Kern County ALUCP is the Bakersfield Municipal Airport, located approximately 5.9 miles northeast of the project site. Given this distance, the project site is not within the Sphere of Influence (SOI) of any airport identified by the Kern County ALUCP. Therefore, there are no impacts.

Mitigation Measures

No mitigation would be required.

Level of Significance

No impact.

Impact 4.9-6: The project would impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan.

As part of the proposed project, a new private road would be constructed along the eastern and southern perimeter of the project site to connect Houghton Road and Wible Road. The new perimeter road would consist of two lanes and would be designed to accommodate heavy trucks. Ingress and egress to the project site would be taken from four driveways along the southern perimeter road. The existing roads, classified as major arterials, would be improved with new pavements, a raised median, curb and gutter, and sidewalks. Therefore, the development of the proposed project would not physically interfere with emergency vehicle access or personnel evacuation from the site.

As further described in **Section 4.17, *Traffic and Transportation***, of this Draft EIR, increased project-related traffic would not cause a significant increase in congestion and or significantly worsen the existing service levels at intersections on area roads; therefore, project-related traffic would not affect emergency access to the project site or any other surrounding location. The proposed project would not require closures of public roads, which could inhibit access by emergency vehicles. For these reasons construction and operation would have a less than significant impact on emergency access.

While impacts would be less than significant, **Mitigation Measure MM 4.17-3** would provide further assurances for emergency access. **Mitigation Measure MM 4.17-3** requires the preparation of a Construction Traffic Control Plan that considers access for emergency vehicles to the project site. During project operation, **Mitigation Measure MM 4.17-3** requires the project operator to obtain Kern County approval of all proposed access road designs prior to construction, further ensuring on-site emergency access is adequate.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.17-3** (see **Section 4.17, *Traffic and Transportation***) would be required as well as:

MM 4.9-13 Prior to the issuance of grading or building 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 4.9-13** and **MM 4.17-3**(see **Section 4.17, *Traffic and Transportation***), impacts would be less than significant.

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.

The project site is not located within a high fire hazard severity zone (CAL FIRE 2007). However, there is crop land on-site and site preparation would involve the removal of existing vegetation, although natural vegetation may be maintained if it does not interfere with project construction or the health and safety of on-site personnel.

As discussed further in **Section 4.15, *Public Services***, of this Draft EIR, the project applicant would implement MM 4.15-1, which would require the preparation and submittal of a Fire Safety Plan to the KCFD for review and approval. The purpose of the Fire Safety Plan would be to eliminate causes of fire, to prevent loss of life and property by fire, to comply with County and KCFD standards, and to comply with the OSHA standard of fire prevention (29 CFR § 1910.39). The Fire Safety Plan would address fire hazards of the different components of the proposed project and would include BMPs to reduce the potential for fire and extinguishment techniques if a fire were to occur. As discussed above in **Impact 4.9-6, Mitigation Measure MM 4.9-13** would be implemented to ensure a Fire Safety Plan for construction and operation of the proposed project is incorporated as part of the proposed project. With mitigation, potential impacts from wildland fires would be reduced to a less than significant level.

See also **Section 4.20, *Wildfire***, of this Draft EIR for additional discussion of wildfire issues.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1** (see **Section 4.15, *Public Services***) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1**, impacts would be 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 the vectors:

- i. Occur as immature stages and adults in numbers considerably in excess of those found in the surrounding environment; or**
- ii. Are associated with design, layout, and management of project operations; or**
- iii. Disseminate widely from the property; or**
- iv. Cause detrimental effects on the public health or well-being of the majority of the surrounding population.**

Project-related infrastructure is not expected to result in features or conditions that could potentially provide habitat for vectors such as mosquitoes, flies, cockroaches, or rodents (such as standing water, agricultural products, or agricultural waste). The project site would produce an insignificant amount of solid waste from construction activities. This may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty non-hazardous containers, and vegetation waste. During construction, the building contractor would arrange to have trash, construction recycling, and regular recycling bins delivered to the project site in accordance with Kern County Building Code requirements and guidelines. However, trash at the site still has the potential to attract vectors. Implementation of **Mitigation Measure MM 4.9-14** would require the preparation of a Maintenance, Trash Abatement, and Pest Management Program for approval by the County, including regular debris clearing, trash removal, and food securing to discourage animal activity. Further, implementation of **Mitigation Measure MM 4.9-15**, which requires the preparation of Vector Control Plan would ensure construction and operation of the proposed warehouse and distribution facility and associated features would not produce excessive wastes, standing water, or other features that would attract nuisance pests or vectors. The proposed detention basins would be underground. Therefore, impacts would be less than significant.

Mitigation Measures

- MM 4.9-14** Prior to issuance of a grading or building permit, a Maintenance, Trash Abatement, and Pest Management Program shall be submitted for review and approval to the Kern County Planning and Natural Resources Department. The program shall include, but not be limited to the following:
- a. The project applicant shall clear debris from the project area at least four times per year; this can be done in conjunction with regular panel washing and site maintenance activities.
 - b. The project applicant shall erect signs with contact information for the project proponent/operator's maintenance staff at regular intervals along the site boundary, as required by the Kern County Planning and Natural Resources Department. Maintenance staff shall respond within two weeks to resident requests for additional

cleanup of debris. Correspondence with such requests and responses shall be submitted to the Kern County Planning and Natural Resources Department.

- c. The project applicant shall implement a regular trash removal and recycling program on an ongoing basis during construction and operation of the project. Barriers to prevent pest/rodent access to food waste receptacles shall be implemented. Locations of all trash receptacles during operation of the project shall be shown on final plans.
- d. Trash and food items shall be contained in closed containers to be locked at the end of the day and removed at least once per week to reduce the attractiveness to opportunistic predators such as common ravens, coyotes, and feral dogs.

MM 4.9-15 Prior to the issuance of grading or 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

With implementation of **Mitigation Measures MM 4.9-14** and **MM 4.9-15**, impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

As described in **Chapter 3, Project Description**, a limited number of warehouse and trucking facilities are proposed in the project vicinity. The geographic scope of impacts associated with hazardous materials generally encompasses the project site and a 0.25-mile-radius area around the site. A 0.25-mile-radius area allows for a conservative cumulative analysis because, 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. 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.

Impacts regarding the handling, use, and/or storage of hazardous materials would be project specific and would not cumulatively contribute to impacts. An accident involving a hazardous material release during project construction or operation through upset or accident conditions, including site grading and the use and transport of petroleum-based lubricants, solvents, fuels, batteries, herbicides, and pesticides to and from the project site, would be location specific. Cumulative projects would be subject to the requirements and regulations set forth by the United States Department of Transportation (USDOT) and the California Department of Transportation (Caltrans) related to transport, use, and disposal of hazardous materials. Conformance with existing State and County regulations, as well as project safety design features required by the Kern County MJHMP and the KCFD, would further reduce potential impacts. Cumulative projects would also be required to implement a SWPPP and comply with the California Code of Regulations during construction, site grading, excavation operations, and building demolition. For these reasons cumulative projects would have a less than significant effect.

Moreover, the proposed project's incremental contribution to less than significant cumulative impacts would not be significant. In addition, implementation of appropriate safety measures during construction of the project, as well as other cumulative projects, would reduce the impact to a level that would not contribute to cumulative effects. Given the minimal risks of hazards at the project site, cumulative impacts are unlikely to occur. Therefore, impacts would not be cumulatively significant.

Hazardous materials to be used during construction activities are of low toxicity and would consist of fuels, oils, and lubricants. Because these materials are required for operation of construction vehicles and equipment, BMPs would be implemented to reduce the potential for or exposure to accidental spills or fires involving the use of hazardous materials. Impacts from minor spills or drips would be avoided by thoroughly cleaning up minor spills as soon as they occur. Accidental discovery of hazardous materials and above- and below-ground utility hazards would be avoided through proper BMPs prior to excavation during project operation. While foreseeable projects have the potential to cause similar impacts, it is assumed these projects would also implement similar BMPs with implementation of **Mitigation Measure MM 4.7-8** (see **Section 4.7, Geology and Soils**). Conformance with existing State and County regulations, as well as implementation of **Mitigation Measures MM 4.9-1 through MM 4.9-12, MM 4.15-1** (see **Section 4.15, Public Services**), and **MM 4.17-3** (see **Section 4.17, Traffic and Transportation**), 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.

As discussed above, the nearest school to the project is General Shafter School, located approximately 0.66 mile southeast of the project site. Project-related infrastructure would not emit hazardous materials or involve handling hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school, and impacts would be less than significant. Given that the project is not in proximity to a school, cumulative impacts are unlikely to occur. Therefore, impacts would not be cumulatively significant.

As discussed above, the project site is not identified in any of the California hazardous materials databases. As such, development of the project would not create a significant hazard to the public or environment. Cumulative impacts are unlikely. Therefore, impacts would not be cumulatively significant.

The nearest public airport identified by the Kern County ALUCP is the Bakersfield Municipal Airport, located approximately 5.9 miles northeast of the project site. Given that the project is not in proximity to a public airport, cumulative impacts are unlikely to occur. Therefore, impacts would not be cumulatively significant.

With regard to an adopted emergency response, as analyzed above, the development of the project would not physically interfere with emergency vehicle access or personnel evacuation from the site. In addition, while impacts would be less than significant, **Mitigation Measure MM 4.17-3**, which requires the preparation of a Construction Traffic Control Plan, and requires that the project operator obtain Kern County approval of all proposed access road designs prior to construction, would be implemented, which would further ensure on-site emergency access is adequate during construction and operation. Further, there are no current or future plans to construct a fire suppression road within the project boundary. Therefore, impacts would not be cumulatively significant.

As analyzed above, to reduce potential impacts to people or structures due to a wildland fire, the proposed project would implement **Mitigation Measures MM 4.9-13** and **MM 4.15-1**, which requires the

preparation and submittal of a Fire Safety Plan to the KCFD for review and approval. With mitigation, potential impacts from wildland fires would be reduced to a less than significant level. Cumulative projects located in less developed and urbanized areas would likely implement similar mitigation measures to reduce any potential impacts from wildland fires. Therefore, impacts would not be cumulatively significant.

Project-related infrastructure is not expected to result in features or conditions that could potentially provide habitat for vectors such as mosquitoes, flies, cockroaches, or rodents (such as standing water, agricultural products, or agricultural waste) with the implementation of **Mitigation Measure MM 4.9-15**, which requires the preparation of a Vector Control Plan to be reviewed for approval by the Kern County Public Health Services Department – Environmental Health Division. Other cumulative projects, which include a mix of warehouse and trucking facilities, would also not be expected to result in providing habitat for vectors as they similarly would be subject to a similar development standard, resulting in less than significant impacts.

Therefore, the proposed 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, and thus potential for cumulative impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.7-8** (see **Section 4.7, *Geology and Soils***). Conformance with existing State and County regulations, as well as implementation of **Mitigation Measures MM 4.9-1** through **MM 4.9-15**, **MM 4.15-1** (see **Section 4.15, *Public Services***), **MM 4.17-3** (see **Section 4.17, *Traffic and Transportation***), and **MM 4.19-9** (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** (see **Section 4.7, *Geology and Soils***). Conformance with existing State and County regulations, as well as implementation of **Mitigation Measures MM 4.9-1** through **MM 4.9-15**, **MM 4.15-1** (see **Section 4.15, *Public Services***), **MM 4.17-3** (see **Section 4.17, *Traffic and Transportation***), and **MM 4.19-9** (see **Section 4.19, *Utilities and Service Systems***), cumulative impacts would be less than significant.

Section 4.10
Hydrology and Water Quality

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4.10.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the hydrological environmental and regulatory settings, addresses potential impacts of the project on hydrology and water quality, and discusses mitigation measures to reduce impacts, where applicable. The information in this section is based, in part, on the *Stormwater Drainage Study* (Kimley-Horn Associates [KHA] 2024a) and the *Storm Water Quality Assessment Memorandum* (KHA 2023a) prepared for the proposed project, provided in Appendix G of this Draft EIR, respectively, as well as the Kern Groundwater Authority Groundwater Sustainability Plan (Kern Groundwater Authority [KGA] 2022), Central Valley Regional Water Quality Control Board (Central Valley RWQCB) Water Quality Control Plan for the Central Valley Region (Basin Plan) (RWQCB 2019), the California Water Plan Tulare Lake Hydrologic Region Report (California Department of Water Resources [DWR] 2013), the California Water Service Company (Cal Water) 2020 Urban Water Management Plan (Cal Water 2021) and other online sources and published documents.

4.10.2 Environmental Setting

Regional Setting

The project site is located in the southern end of the Central Valley. The southern portion of the Central Valley, known as the San Joaquin Valley, is drained by the San Joaquin River. The San Joaquin Valley is divided into the San Joaquin River and the Tulare Lake regions by the San Joaquin River, with the Tulare Lake region comprising the southern portion. Historically, the valley floor in this region consisted of a complex series of interconnecting natural sloughs, canals, and marshes. The southern portion of the region contains significant geographic features like the lakebeds of the former Buena Vista/Kern and Tulare lakes, the Coast Ranges to the west, and the southern Sierra Nevada to the east. The Tulare Lake region is divided into several main hydraulic subareas: the alluvial fans from the Sierra foothills and the basin subarea (in the vicinity of the Kings, Tule, and Kaweah Rivers and their tributaries); the Tulare Lake bed; and the southwestern uplands. The largest river in terms of runoff is the Kings River, which originates in the Kings Canyon National Park and trends southwest into Pine Flat Lake. The Kern River has the largest drainage basin area and produces the second highest amount of runoff, originating in the Inyo and Sequoia national forests and flowing southward to Lake Isabella (see **Figure 4.10-1**, *Tulare Lake Hydrologic Region* and **Figure 4.10-2**, *Alluvial Groundwater Basins and Subbasins within the Tulare Lake Hydrologic Region*).

The Tulare Lake Hydrologic Region covers approximately 10.9 million acres and includes all of Kings and Tulare Counties and most of Fresno and Kern Counties. The economic development of the region is highly dependent on the surface water and groundwater resources of the Tulare Lake Hydrologic Region, with the region operating as one of the nation's leading agricultural production areas (DWR 2013).

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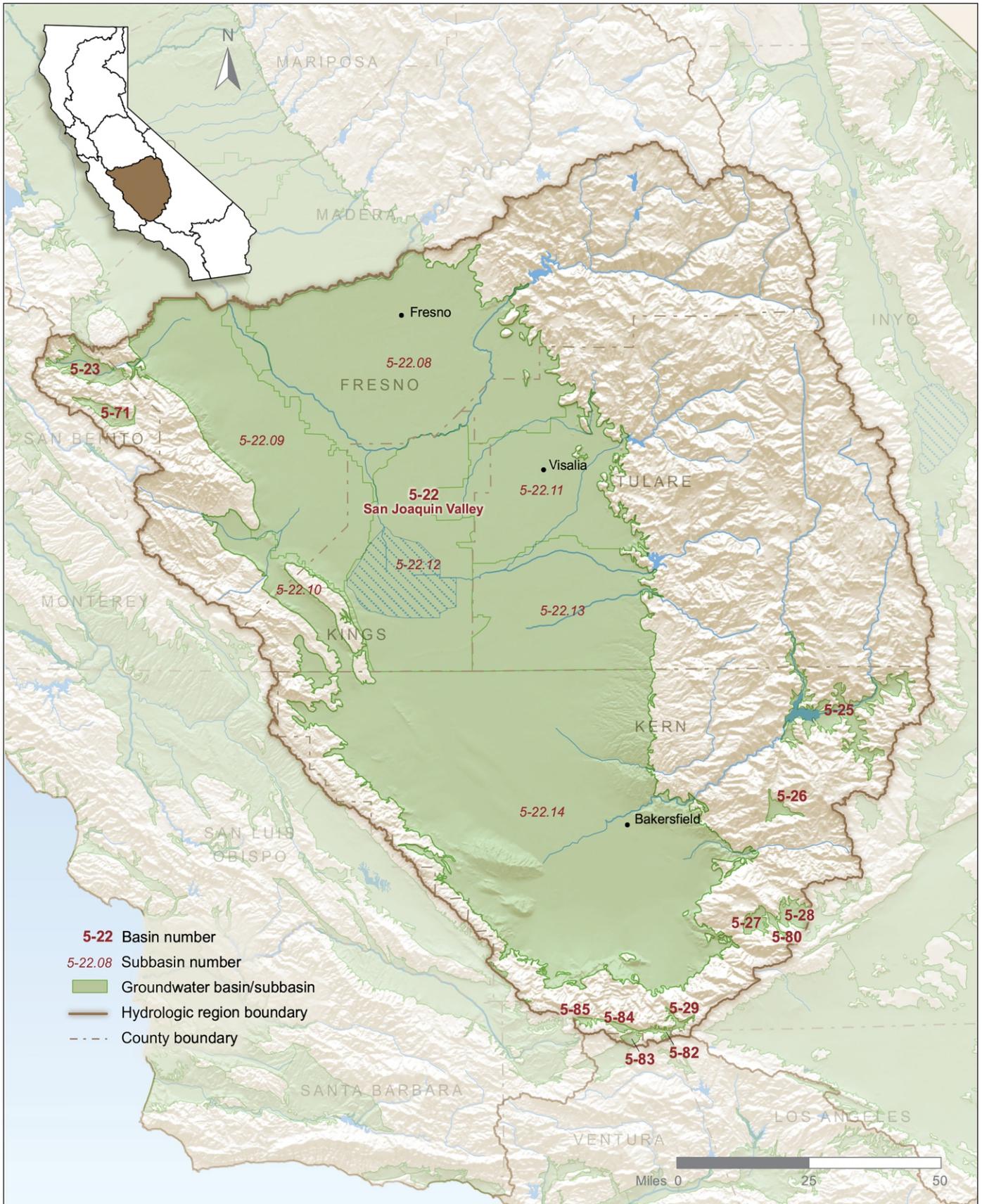


Source: California Department of Water Resources 2013.

Figure 4.10-1
Tulare Lake Hydrologic Region



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Source: California Department of Water Resources 2013.

Figure 4.10-2
 Alluvial Groundwater Basins and Subbasins
 within the Tulare Lake Hydrologic Region



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Climate and Meteorology

The Bakersfield area is characterized by a hot desert-type climate. Winters are typically cool and rainy, with dense tule fog (i.e., thick low-lying fog). Summers are very hot and dry. The average annual high temperature is 77.8°F (degrees Fahrenheit) and the average annual low temperature is 52.7 °F. Bakersfield receives an average of 6.17 inches of precipitation annually, making it one of the drier places in California. **Table 4.10-1, *Bakersfield Climate Summary*** summarizes the meteorological characteristics of Bakersfield, as measured at the Bakersfield Airport (Western Regional Climate Center 2016).

TABLE 4.10-1: BAKERSFIELD CLIMATE SUMMARY

Temperature (°F)			
Month	Average High	Average Low	Precipitation (inches)
January	57.4	38.5	1.04
February	63.6	42.1	1.16
March	69.0	45.4	1.12
April	75.5	49.7	0.67
May	84.2	56.6	0.21
June	91.1	63.3	0.07
July	98.6	69.2	0.01
August	96.7	67.7	0.04
September	91.0	63.1	0.10
October	80.5	54.0	0.30
November	67.3	44.1	0.59
December	57.8	38.5	0.89
Annual Average	77.8	52.7	6.17

Notes: Period of record October 1, 1937 to June 9, 2016.

SOURCE: Western Regional Climate Center 2016.

Site Hydrology

Surface Hydrology and Drainage

The project site is characterized by flat terrain used for cultivated agriculture. At an elevation of 330 feet, the project site generally flows from northeast to southwest with an average slope of 0.3 percent. Surface flows toward dirt ditches bordering the project site along the existing unpaved private roads, and along Houghton Road and Wible Road. In its existing state, there is no municipal drainage infrastructure within the public right-of-way. Irrigation channels between the project site and the bordering dirt roads are used to capture and reuse irrigation water from agricultural wells outside of the project site (KHA 2024a).

Floodplains

The Federal Emergency Management Agency (FEMA) delineates flood hazard areas on its Flood Insurance Rate Maps (FIRMs); FIRMs are discussed in more detail below under Section 4.10.3, *Regulatory Setting*. According to FEMA’s National Flood Hazard Layer (NFHL) Viewer, the project site is located in Zone X, an area of minimal flood hazard and outside of the 100-year flood zone (FEMA 2008). No portion of the project site is located within the Special Flood Hazard Area (SFHA) inundated by the 100-year flood area (KHA 2024a).

Soil Types and Erosion

According to the Stormwater Drainage Study completed for the proposed project, the project site consists of 73 percent Bakersfield fine sandy loam and 27 percent Vineland loamy sand. These soils are classified as Hydrologic Soil Group B, soils which have a moderate infiltration rate when thoroughly wet and have a moderate rate of water transmission.

Groundwater Resources

Kern County Subbasin

The project site is located within the Kern County Subbasin of the San Joaquin Valley Groundwater Basin. The Subbasin encompasses a surface area of 1,792,000 acres (approximately 2,800 square miles) and contains approximately 6 miles of marine and continental sediments. The Subbasin has approximately 40,000,000 acre-feet of groundwater storage and an additional 10,000,000 acre-feet of storage capacity. The Subbasin is bounded by the Sierra Nevada on the east; the Tehachapi mountains, San Emigdio mountains, and White Wolf Subbasin to the south; and the Coast Range to the west. The Kettleman Plain, Tulare Lake, and Tule Subbasins lie to the north.

The 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 submittal of a Groundwater Supply 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).

4.10.3 Regulatory Setting

Federal

Clean Water Act

The Clean Water Act (CWA) (33 United States Code [USC] 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 RWQCBs. The project site is within the Central Valley RWQCB. Projects that disturb 1 or more acres, including the proposed project, are required to obtain NPDES coverage under the Construction General Permits.

Section 402, National Pollutant Discharge Elimination System. Section 402 of the CWA authorizes the California State Water Resources Control Board (State Water Board) to issue a NPDES General Construction Stormwater 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:

- 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 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 Central Valley RWQCB at the project site.

National Flood Insurance Act

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

The major responsibilities of DWR 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

The Porter-Cologne Water Quality Control Act (Water Code Sections 13000 *et seq.*), passed in 1969, requires protection of water quality by appropriate designing, sizing, and construction of erosion and sediment controls. The Porter-Cologne Act established the State Water Board and divided California into nine regions, each overseen by a RWQCB. The State Water Board 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 CWA Sections 401 through 402 and 303(d) to the State Water Board 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 3 years. Compliance with basin plans is primarily achieved through implementation of the NPDES, which regulates waste discharges as discussed above.

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 as provided in the Basin Plan (State Water Board 2023).

Sustainable Groundwater Management Act

The SGMA requires the formation of local-controlled groundwater sustainable agencies in high- and medium-priority groundwater basins. These groundwater sustainability agencies are responsible for developing and implementing a GSP to ensure the basin is operated within its sustainable yield without causing undesirable results. 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 Water 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 Groundwater Sustainability Agency, 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

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 are also the City of Bakersfield adopted Sphere of Influence (SOI). The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for hydrology and water quality applicable to the proposed project are provided below.

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 the 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.

Kern County Zoning Ordinance

Kern County Code of Building Regulations

Grading Code (Chapter 17.28)

The Kern County Grading Code (Chapter 17.28, Building Code, of the Kern County Code of Regulations) 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.

Chapter 17.28.140 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.

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 which 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.

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 to identify whether stormwater runoff has the potential of discharging 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 discharge 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 preparation of a SWPPP. Should stormwater runoff not drain to waters of the United States (e.g., 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:

1. All stormwater is retained on-site and no stormwater 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 stormwater 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, an SWPPP has been developed and BMPs must be implemented.

3. All stormwater runoff is not retained on-site, and the discharge is to a water of the United States. Therefore, a Notice of Intent (NOI) must be filed with the State Water Board prior to issuance of the building permit. Also, an 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 State Water Board. BMPs must be implemented.

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, identified drainage conditions in the project site, and the current regulatory framework. The project's potential impacts to hydrology and water quality have been evaluated using the *Stormwater Drainage Study* (KHA 2024a) and the *Storm Water Quality Assessment Memorandum* (KHA 2023a) prepared for the project, provided in Appendix G of this Draft EIR, respectively, as well as the Kern Groundwater Authority GSP (KGA 2022), Central Valley RWQCB Water Quality Control Plan for the Central Valley Region (Basin Plan) (RWQCB 2019), the California Water Plan Tulare Lake Hydrologic Region Report (DWR 2013), the Cal Water 2020 Urban Water Management Plan (Cal Water 2021) and other resources including online sources and published documents. 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 CEQA Guidelines Appendix G, to determine whether a project could potentially have a significant adverse effect on hydrology and water quality.

A project could have a significant impact on hydrology and water quality if it would:

- a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality;
- b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin;
- c. 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:
 - i. Result in substantial erosion or siltation on-site or off-site;
 - ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
 - iii. 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;
 - iv. Impede or redirect flood flows;
- d. Result in a flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation;

- e. 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 degrade surface or groundwater water quality.

Construction

Project construction would include mowing, excavation, and grading portions of the project site. Conventional grading would be performed throughout the project site. These activities could affect current drainage patterns and erosion on the project site; however, designing and implementing the site grading and construction in compliance with County standards would prevent substantial alterations to drainage patterns and erosion within the project site.

Potential impacts on water quality from erosion and sedimentation are expected to be localized and temporary during construction. Stormwater runoff from the project site would not discharge to waters of the United States since the project site is within a watershed that is not hydrologically connected to a navigable waterway. However, according to the Kern County Public Works Department NPDES applicability form, the proposed project would be required to implement an SWPPP during construction. As result, the proposed project would be required to comply with **Mitigation Measure MM 4.10-1**, which requires the preparation of a SWPPP. The SWPPP would include BMPs designed to prevent the occurrence of soil erosion and discharge of other construction-related pollutants that could contaminate water quality. As described in **Section 4.7, *Geology and Soils***, implementation of **Mitigation Measure MM 4.7-8** would require that the project applicant prepare an Erosion and Sedimentation Control Plan, which would outline project measures to further avoid potential impacts to water quality as a result of erosion and sediment runoff during grading and construction activities.

During project construction, any activity that results in the accidental release of hazardous or potentially hazardous materials could result in water quality degradation. Further, any construction activity that results in the accidental release of pollutants, hazardous or potentially hazardous materials could result in water quality degradation. Materials that could contribute to this impact include, but are not limited to, diesel fuel, gasoline, lubricant oils, hydraulic fluid, antifreeze, transmission fluid, lubricant grease, cement slurry, and other fluids utilized by construction and maintenance vehicles and equipment. Motorized equipment could leak hazardous materials such as motor oil, transmission fluid, or antifreeze due to inadequate or improper maintenance, unnoticed or unrepaired damage, improper refueling, or operator error. The proposed project would utilize standard equipment such as electric forklifts and pallet jacks.

As noted in **Section 4.9, *Hazards and Hazardous Materials***, of this Draft EIR, **MM 4.9-3** would require the project proponent to provide a Hazardous Materials Business Plan that would delineate hazardous material and hazardous waste storage areas; describe proper handling, storage, transport, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill; describe procedures for handling and disposing of unanticipated hazardous materials encountered during construction; and establish public and agency notification procedures for spills and other emergencies, including fires. Therefore, with implementation of **Mitigation Measures MM 4.7-8** and **MM 4.9-3**, impacts to water quality would be less than significant during construction.

Operation

Water quality could also be degraded by non-hazardous materials during operation activities. During dry periods, impervious surfaces (i.e., hardscape surfaces such as foundations and buildings) can collect grease, oils, and other vehicle-related pollutants. During storm events, these pollutants can mix with stormwater and degrade downstream water quality. A *Stormwater Drainage Study* was prepared for the proposed project in accordance with Kern County Development Standards and requirements, to demonstrate the project's compliance with the *Kern County Hydrology Manual* and *Kern County Public Works Division Four: Standards for Drainage*. The study also analyzed the impact of the project's stormwater generation on downstream properties.

Furthermore, the *Storm Water Quality Assessment Memorandum* details source control BMPs to be incorporated in the proposed project. Applicable source control BMPs include SD-13 Storm Drain Signage, SD-32 Trash Storage Area, SC-34 Waste Handling and Disposal, SD-41 Building and Grounds Maintenance, SC-43 Parking Area/Storage Area Maintenance, and regular maintenance of the retention basins. The *Storm Water Quality Assessment Memorandum* includes an Operation and Maintenance Plan detailing the routine maintenance and service to ensure the continued efficiency and continued operation of the source control BMPs. The proposed retention and treatment basins, as well as the applicable source control BMPs, would reduce potential impacts to water quality as a result of stormwater runoff from the project site to below a level of significance.

The proposed warehouse would require limited use of certain hazardous materials for routine operations and maintenance. Accidental release of such materials could include fuels, paints, coatings, lubricants, and mechanical fluids, which would result in water quality degradation should the materials become entrained in stormwater. This would result in a potentially significant impact on 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 applicant to provide a Hazardous Materials Business Plan that would delineate hazardous material and hazardous waste storage areas; describe proper handling, storage, transport, and disposal techniques; describe methods to be used to avoid spills and minimize impacts in the event of a spill; describe procedures for handling and disposing of unanticipated hazardous materials encountered during project operation; and establish public and agency notification procedures for spills and other emergencies, including fires. Implementation of a Hazardous Materials Business Plan that 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.

Therefore, with the implementation of BMPs, project design features and **Mitigation Measures MM 4.10-1, MM 4.10-2, MM 4.7-8 and MM 4.9-3**, project operation would not violate water quality standards or waste discharge requirements, or otherwise degrade water quality and impacts would be less than significant.

Mitigation Measures

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:

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 off-site 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 hydrologic study and final drainage plan designed to evaluate and minimize potential increases in runoff from the project site. The study shall include, but is not limited to the following:

- a. A numerical stormwater model for the project site that evaluates existing and proposed (with project) drainage conditions during storm events ranging up to the 100-year event.
- b. The study shall also consider potential for erosion and sedimentation in light of modeled changes in stormwater flow across the project area that would result from project implementation.
- c. Engineering recommendations to be incorporated into the project design and applied within the site boundary. Engineering recommendations will include measures to offset increases in stormwater runoff that would result from the project, as well as implementation of design measures to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding on-site or off-site.
- d. The hydrologic study and drainage plan shall be prepared in accordance with the Kern County Grading Code and Kern County Development Standards, and approved by the Kern County Public Works Department prior to the issuance of grading permits.

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.

According to the *Stormwater Drainage Study*, project site soils consist of 73 percent Bakersfield fine sandy loam and 27 percent Vineland loamy sand. These soils have a moderate infiltration rate when thoroughly wet and have a moderate rate of water transmission. Groundwater was not encountered at the project site; however, groundwater wells located approximately 2.2 miles and 3.2 miles from the project site show groundwater levels at 22.5 to 34 feet and 141 to 145 feet below ground, respectively (KHA 2024a).

The project site is currently used as an active agricultural field and has been historically covered by row crops. As such, implementation of the proposed project would result in an increase in impervious surfaces on the project site from the warehouse footprint, parking lots, internal roadways, and other hardscaped areas. However, as previously discussed, runoff from the project site would be captured by the on-site storm drainage system and routed to one of three stormwater retention basins located throughout the site. From there, runoff would percolate into the soil, facilitating groundwater recharge. Furthermore, the proposed project would include approximately 15.89 acres of landscaping.

The proposed project would be served with potable water provided by Cal Water. Service laterals would be extended from an existing water line located within Wible Road. The project proposes a single water tank for fire suppression volume. Though the Water Supply Assessment determined that there are sufficient supplies for both project construction and operation, **Mitigation Measures MM 4.19-7 and MM 4.19-8** (see **Section 4.19, Utilities and Service Systems**) would be implemented to ensure that any groundwater used is accounted for should the project require additional water supplies in excess of the allotment from the District. Other future projects in the vicinity would be required to comply with similar water supply regulations.

The WKWD primarily pumps groundwater but balances this extraction by recharging its State Water Project (SWP) water and other supplemental water supplies. Such banked water is not considered SWP water any longer once banked and can be used as a project source under CEQA. The WKWD is allocated 31,500 acre-feet per year of SWP surface water at 100 percent allocation when available and an extra 10,000 AFY available in wet years. Based on the WKWD 2020 Urban Water Management Plan (UWMP), the average water year supply is 25,750 acre-feet. According to the UWMP, when SWP water is restricted, the WKWD can meet water demand using banked groundwater supplies (WKWD 2021).

On a project level, the proposed project would not result in a significant reduction of groundwater infiltration rates. The proposed project would have a less than significant impact on groundwater supplies related to groundwater recharge at the 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, a determination of the cumulative impacts is discussed further below.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.19-7** and **4.19-8** (see **Section 4.19, Utilities and Service Systems**) would be required.

Level of Significance

With implementation on **Mitigation Measures MM 4.19-7** and **MM 4.19-8** (see **Section 4.19, Utilities and Service Systems**), impacts would be less than significant.

Impact 4.10-3: The project would substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would result in substantial erosion and/or sedimentation on-site or off-site.

Required grading activities for the proposed project could alter existing on-site drainage patterns and flowpaths, and could alter the way that stormwater flows on-site during major events. These changes could concentrate flows and thus result in increased erosion of existing soils on-site (scour) and subsequent sedimentation downstream. Further, the impervious surfaces introduced to the site due to development of the proposed project could generate additional stormwater runoff on-site, which could exacerbate potential erosion and sedimentation on-site or downstream. However, the proposed project would divide the project site into three drainage management areas (DMAs) which would drain to the three proposed retention basins A, B, and C. The proposed retention basins would be designed to retain and treat, via infiltration, peak 100-year storm runoff flow. These stormwater management features, as well as source control BMPs detailed in the *Storm Water Quality Assessment Memorandum* would be consistent with existing regulatory requirements and would minimize any erosion or sedimentation to less than significant levels.

Furthermore, as described above, the proposed project would implement a SWPPP as well as an Erosion and Sedimentation Control Plan in accordance with **Mitigation Measures MM 4.7-8** (see **Section 4.7, Geology and Soils**) and **MM 4.10-1** that would include erosion and sediment control BMPs such as preparing and maintaining the faces of cut and fill prior to calling for final approval; implementing other necessary devices such as check dams, cribbing, or riprap; just control measures, and implementing temporary drainage and erosion control as needed at the end of each work day during grading to ensure drainage channels would not be blocked; dust control measures to reduce dust nuisance. These BMPs would be designed to prevent erosion and sedimentation from occurring during project construction. This would further reduce potential impacts related to erosion and sediment runoff. Compliance with the Kern County Grading Ordinance is also required, which requires erosion prevention measures. Furthermore, the *Stormwater Drainage Study* prepared for the project plan further demonstrates that the project site has been designed to minimize potential increases in runoff and sedimentation in accordance with the performance standards identified in the Kern County Grading Code and County requirements. With implementation of **Mitigation Measures MM 4.7-8** and **MM 4.10-1**, impacts would be less than significant.

Mitigation Measures

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** would be required.

Level of Significance after Mitigation

With implementation of **Mitigation Measures MM 4.7-8** and **MM 4.10-1**, impacts would be less than significant.

Impact 4.10-4: The project would substantially alter the existing drainage patterns of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner that would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on-site or off-site.

As discussed under **Impact 4.10-3** above, grading and installation of project facilities could alter existing on-site drainage patterns and flowpaths. This could cause localized flooding during major events along the margins of the project area, or within the project area. The project site is currently used as an active agricultural field, thus implementation of the proposed project would introduce a significant amount of new impervious surfaces. However, as discussed above, runoff from the project site would be collected and conveyed to three retention and treatment basins. As illustrated in **Figure 4.10-3, Proposed Drainage**, retention basins would be designed to retain and treat peak 100-year storm runoff flow. The *Drainage Study* prepared for the proposed project identifies stormwater control features in accordance with County standards to ensure that the rate or amount of runoff is not substantially increased by the proposed facilities. Implementation of **Mitigation Measure MM 4.10-2** requires the preparation and submittal of a hydrologic study and drainage plan to be reviewed for approval by the Kern County Public Works Department prior to the issuance of grading permits. The final study and drainage plan would be designed to evaluate and minimize potential increases in runoff from the project site, and identify elements of drainage control such as the proposed retention basins to ensure that grading for the project facilities does not alter the ground surface such that the extent of flooding during flood events is substantially increased. Therefore, impacts related to flooding would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.10-2** would be required.

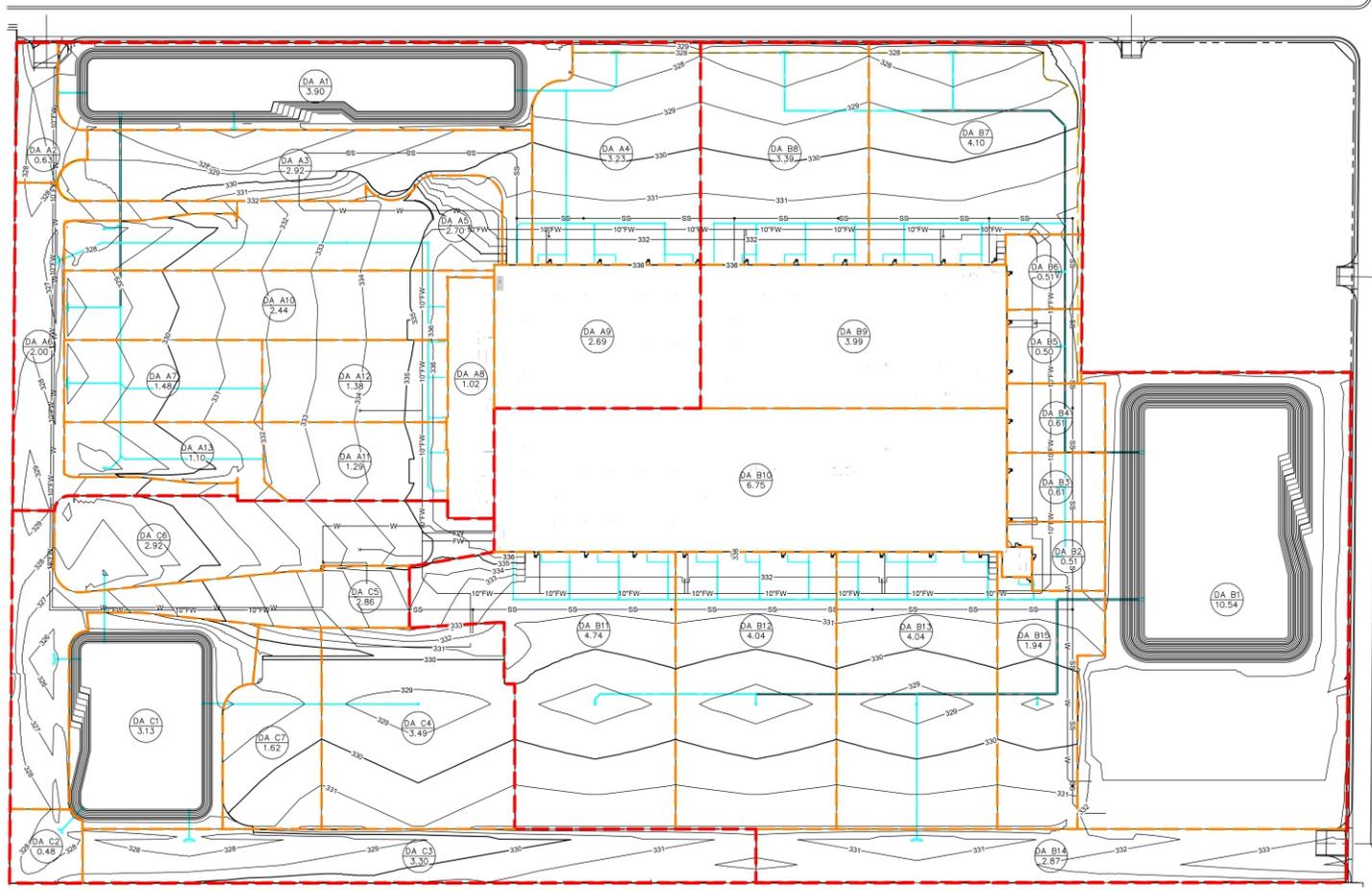
Level of Significance after Mitigation

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

BASIN A SUMMARY		BASIN B SUMMARY		BASIN C SUMMARY		SITE SUMMARY	
DMA ID	AREA (AC) Q ₁₀₀ (CFS)	DMA ID	AREA (AC) Q ₁₀₀ (CFS)	DMA ID	AREA (AC) Q ₁₀₀ (CFS)	AREA (AC)	Q ₁₀₀ (CFS)
DA A1	3.90	DA B1	10.54	DA C1	3.13	93.73	243.79
DA A2	0.63	DA B2	0.51	DA C2	0.48		
DA A3	2.92	DA B3	0.61	DA C3	3.30		
DA A4	3.23	DA B4	0.61	DA C4	3.49		
DA A5	2.70	DA B5	0.50	DA C5	2.86		
DA A6	2.00	DA B6	0.51	DA C6	2.52		
DA A7	1.48	DA B7	4.10	DA C7	1.63		
DA A8	1.02	DA B8	3.39	TOTAL	17.80		46.29
DA A9	2.69	DA B9	3.99				
DA A10	2.44	DA B10	6.75				
DA A11	1.29	DA B11	4.74				
DA A12	1.38	DA B12	4.04				
DA A13	1.10	DA B13	4.04				
TOTAL	22.25	DA B14	2.87				
		DA B15	1.94				
		TOTAL	49.16				127.86

LEGEND

- DMA ID
- BASIN ID
- BASIN XX ACRES
- STORM DRAIN CURB INLET
- STORM DRAIN OUTLET HEADWALL
- GRATED INLET WITH CONC APRON
- OVERALL DMA BOUNDARY
- SUB-DMA BOUNDARY
- STORM LINE
- MAJOR CONTOURS
- MINOR CONTOURS



NORTH

GRAPHIC SCALE IN FEET

Source: Kimley-Horn Associates.

Figure 4.10-3
Proposed Drainage

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Impact 4.10-5: The project 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 is located in a remote, rural region with no existing stormwater infrastructure. There are no existing stormwater drainage systems on the project site. The proposed project would install an on-site storm drainage collection system consisting of inlets, underground piping, and detention basins. Runoff would be captured by the on-site storm drainage system and routed to one of three stormwater detention basins located throughout the site. From there, runoff would percolate into the soil or evaporate. The proposed project would be required to adhere to Kern County Public Works Department stormwater requirements, 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. As described above, implementation of **Mitigation Measure MM 4.10-2** would demonstrate the proposed project would not exceed the capacity of any existing or planned infrastructure and the implementation of the proposed retention basins, which would minimize potential increases in stormwater flow and other project-induced changes to drainage patterns to less than significant levels.

Mitigation Measures

Implementation of **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.

Impact 4.10-6: The project would impede or redirect flood flows.

As noted in **Section 4.10.2, *Environmental Setting***, the project site is located in Zone X, an area of minimal flood hazard and outside of the 100-year flood zone (FEMA 2008). No portion of the project site is located within the SFHA inundated by the 100-year flood area (KHA 2024a). Furthermore, the Kern County General Plan Figure 14 *Overlay Constraints: Flooding and Shallow Groundwater* does not indicate that the project site is within a Flood Hazard Area.

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 result in a flood hazard, tsunami, or seiche zone, that would risk release of pollutants due to project inundation.

As described above, the project site is not located in the 100-year flood zone. In addition, 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. Accordingly, there would be no impacts related to flood hazard, tsunami, or seiche.

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.

As noted above, the project site is located within the Central Valley RWQCB and is subject to the applicable requirements of the Basin Plan administered by the RWQCB in accordance with the Porter-Cologne Water Quality Control Act. As discussed above, the proposed project would include required BMPs and drainage control requirements that would be consistent with the Basin Plan.

The project site is also located within the Kern County Subbasin, which is a high priority basin under SGMA. As discussed previously, there are 14 GSAs within the Kern County Subbasin. The 14 GSAs have collaborated in the adoption of a Coordination Agreement, as required under SGMA, for the coordinated management and implementation of six GSPs prepared in the Subbasin (KGA 2022). The project site is located within the boundaries of the Kern River GSA. The Kern River GSA prepared its GSP in 2019.

The proposed project would be served by Cal Water, Bakersfield District, which obtains water from both surface and groundwater sources. Historically, groundwater supplies from the Kern County Subbasin have been sufficient to meet demand. On a per-acre basis, agriculture typically uses more water than urban uses. Average annual groundwater pumping from 1995 to 2014 was approximately 1,590,373 acre-feet per year, approximately 78 percent of which was for irrigated agriculture while 12.5 percent was for municipal and industrial uses. As such, management of agricultural groundwater use, rather than municipal and industrial groundwater use, is a larger determining factor in maintaining groundwater sustainability in the Kern County Subbasin (Cal Water 2021). According to the 2020 UWMP completed by Cal Water, future growth within the Bakersfield District is expected to result in a net decrease in water use within the Kern County Subbasin (Cal Water 2021). As such, the proposed project would not conflict with any provisions of a water control plan or a sustainable groundwater management plan and impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

As shown in **Chapter 3, Project Description, Figure 3-9, Cumulative Projects**, and **Table 3-5, Cumulative Projects List**, of this Draft EIR, a number of warehouse projects are proposed in the project vicinity. Most of the projects are located within the southern part of the San Joaquin Valley Hydrologic Unit and the Kern County Subbasin.

Similar to the proposed project, cumulative projects would not discharge to waters of the United States due to their location within the San Joaquin Valley, which is effectively a closed basin with no outlet to the Pacific Ocean. All projects would be required to either retain all runoff on-site or would be required to prepare a SWPPP as required by **Mitigation Measure MM 4.10-1** and Erosion and Sedimentation Control Plan as described by **Mitigation Measure MM 4.7-8** (see **Section 4.7, *Geology and Soils***), which would include BMPs designed to prevent the mixture of sediment and other pollutants with stormwater and degrading water quality. Furthermore, all other projects in the vicinity that would handle hazardous materials would also be required to comply with hazardous material regulations, similar to the proposed project's implementation of **Mitigation Measure MM 4.9-3**. Therefore, cumulative impacts associated with water quality degradation would be less than significant, and moreover, the proposed project would not have a cumulatively considerable contribution to the less than significant cumulative impact on water quality.

With regard to water supply, the proposed project would be expected to result in a net reduction in water consumption relative to what is currently used on-site to irrigate the row crops. Though the Water Supply Assessment determined that there are sufficient supplies for both project construction and operation, **Mitigation Measures MM 4.19-7 and MM 4.19-8** (see **Section 4.19, *Utilities and Service Systems***) would be implemented to ensure that any groundwater used is accounted for should the project require additional water supplies in excess of the allotment from the District. Other future projects in the vicinity would be required to comply with similar water supply regulations. Similarly, cumulative development would have a similar effect. As a result, there would be no adverse cumulative effect to the groundwater subbasin.

With respect to erosion, drainage, and flooding, impacts from cumulative scenario projects would be primarily localized. It is anticipated that cumulative scenario projects would be required to implement BMPs and measures similar to **Mitigation Measures MM 4.10-1, MM 4.10-2, MM 4.7-8, MM 4.9-3, MM 4.19-7, and MM 4.19-8**, in order to avoid erosion, drainage, and flooding related impacts. 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.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.10-1, MM 4.10-2, MM 4.7-8** (see **Section 4.7, *Geology and Soils***), **MM 4.9-3** (see **Section 4.9, *Hazards and Hazardous Materials***), **MM 4.19-7, and MM 4.19-8** (see **Section 4.19, *Utilities and Service Systems***) would be required.

Level of Significance after Mitigation

Despite implementation of **Mitigation Measures MM 4.10-1, MM 4.10-2, MM 4.7-8, MM 4.9-3, MM 4.19-7, and MM 4.19-8**, cumulative impacts would be significant and unavoidable.

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Section 4.11
Land Use and Planning

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4.11.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting of the proposed project for impacts that may affect land use and planning. It also describes the environmental and regulatory setting and discusses the need for mitigation measures where applicable. The information in this section is based, in part, on a review of the proposed project's consistency with the Metropolitan Bakersfield General Plan, and the Kern County Zoning Ordinance.

4.11.2 Environmental Setting

On-site Land Uses

The project site is currently used as an active agricultural field and does not contain any structures. The site has been historically covered by row crops of corn. Currently, there are two canceled oil and gas wells at the project site (see **Section 4.9**, *Hazards and Hazardous Materials*).

As discussed in **Section 4.2**, *Agriculture and Forestry Resources*, approximately 69.03 acres of the project site is designated by the California Department of Conservation (DOC) as Prime Farmland, while the remaining 24.71 acres of the project site is designated as Unique Farmland. The off-site roadway and frontage improvement area is designated as Prime Farmland and Semi-Agricultural and Rural Commercial Land (see **Figure 4.2-2**). The project site is located within Kern County Agricultural Preserve No. 10, as is the standard practice in Kern County for any land that is Zoned A (Exclusive Agriculture). The project site is not encumbered by an existing Williamson Act Contract.

As discussed in **Section 4.10**, *Hydrology and Water Quality*, the project site is located in Flood Zone X, an area of minimal flood hazard and outside of the 100-year flood zone. Furthermore, the project site is not located within the Special Flood Hazard Area (Zone A, V, A99, AE, AO, AH, VE, or AR). As discussed in **Section 4.4**, *Biological Resources*, the project site does not contain any wetlands or any potentially jurisdictional waterbodies or wetlands that may fall under the jurisdiction of federal and/or State regulatory agencies.

The project site is not designated by the Metropolitan Bakersfield General Plan as R-MP (Mineral and Petroleum) or within a mineral resource zone identified by the DOC's State Mining and Geology Board. Based on a review of records maintained by the California Geologic Energy Management Division (CalGEM) and as discussed above, two canceled oil and gas wells were identified as discussed in **Section 4.9**, *Hazards and Hazardous Materials*.

As shown in **Table 4.11-1**, *Project Site and Surrounding Land Uses and Zoning Classifications* and illustrated in **Chapter 3**, *Project Description*, **Figure 3-5**, *Existing General Plan Land Use Designations*, of this Draft EIR, the project site has a Metropolitan Bakersfield General Plan designation of Intensive Agricultural (R-IA).

As shown in **Table 4.11-1, Project Site and Surrounding Land Uses and Zoning Classifications**, below, and illustrated in **Chapter 3, Project Description, Figure 3-7, Existing Zoning**, of this Draft EIR, the project site is zoned as A (Exclusive Agriculture). The project site is also included within Kern County Agricultural Preserve Number 10 boundary as Agricultural Preserve inclusion is the standard practice in Kern County for any land that is zoned A (Exclusive Agriculture) to be included in an Agricultural Preserve.

Surrounding Land Uses

As described in **Chapter 3, Project Description**, of this Draft EIR, land uses in the region and the immediate area of the project site consist of agriculture with a mix of row crops and grazing land. To the north and west of the project site is Martin Feed Inc., an agricultural processing facility. The area to the south and east of the project site consists of agricultural properties used for row crops. The Kern Island Canal, which runs north–south in the project vicinity is approximately 1 mile east of the project site.

The nearest residences are located approximately 400 feet from the southwest corner of the project site and 0.21 west of the project site. The nearest populated areas to the project site are the unincorporated communities of Alameda, Weedpatch, and Lamont, which are located approximately 1.5 miles east, 6.73 miles east, and 6.87 miles northeast of the project site, respectively.

As illustrated in **Chapter 3, Project Description, Figure 3-5, Existing General Plan Land Use Designations**, and summarized in **Table 4.11-1, Project Site and Surrounding Land Uses and Zoning Classifications**, surrounding land uses are designated R-IA. Surrounding land uses are located within the A (Exclusive Agriculture) Zone District.

TABLE 4.11-1: PROJECT SITE AND SURROUNDING LAND USES AND ZONING CLASSIFICATIONS

	Existing Land Use	Existing General Plan Designation	Existing Zoning
Project Site	Active agricultural field	R-IA (Intensive Agriculture)	A (Exclusive Agriculture)
Surrounding Land Use			
North	Agriculture, Agriculture Processing, Animal Feed Storage	Intensive Agriculture (R-IA- minimum 20-acre parcel size)	Exclusive Agriculture (A)
East	Agriculture, Residential, Private School	Intensive Agriculture (R-IA- minimum 20-acre parcel size), Rural Residential (RR), Public and Private Schools (PS)	Limited Agriculture (A-1), Limited Agriculture/Mobile Home (A-1-MH), Exclusive Agriculture (A)
South	Agriculture, Public School	Intensive Agriculture (R-IA- minimum 20-acre parcel size)	Exclusive Agriculture (A)
West	Agriculture, Residential	Intensive Agriculture (R-IA- minimum 20-acre parcel size)	Exclusive Agriculture (A)

4.11.3 Regulatory Setting

Federal and State

There are no applicable federal or State regulations for this issue area.

Local

Land use and planning decisions within and adjacent to the project site are guided and regulated by the Metropolitan Bakersfield General Plan and Kern County Zoning Ordinance. The Kern County and Metropolitan Bakersfield General Plans 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 project. The Zoning Ordinance contains regulations through which the Metropolitan Bakersfield General Plan's provisions are implemented. The most relevant regulations pertaining to the proposed project are presented below.

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) that provides further information on planned land uses, policies, and implementation programs for the unincorporated portions of the metropolitan plan area. Within the Chapter II–Land Use Element, policy areas are separated by overlay designations, known as “Map Codes,” which are identified on the Kern County General Plan maps for each section of the County and include the following categories: (1) residential; (2) commercial; (3) industrial; (4) resource; (5) public facilities; and, (6) open space.

As the located within the jurisdiction of the Metropolitan Bakersfield General Plan, the site is designated as Intensive Agricultural (R-IA – minimum 20-acre parcel size).

The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for land use and planning applicable to the proposed project are provided 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 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 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 or 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 effects to human health as required by the Department of Environmental Services.
- Policy 27** Require that new commercial uses maintain visual compatibility with single-family residences in areas designated for historic preservation.
- Policy 34** 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 61** Coordinate a consistent design vocabulary between city and county for all public signage, including fixture type, lettering, colors, symbols, and logos.

- Policy 63** Encourage the use of creative and distinctive signage which establishes a distinctive image for the Planning area and identifies principal entries to the metropolitan area, unique districts, neighborhoods and locations.
- Policy 67** Develop a distinctive identity for the Bakersfield region which differentiates it as a unique place in the Southern San Joaquin Valley.
- Policy 69** Allow variation in the use of street trees, shrubs, lighting, and other details to give streets better visual continuity and increased shade canopy.
- Policy 70** Provide for the installation of street trees which enhance pedestrian activity and convey a distinctive and high quality visual image.
- Policy 74** Encourage the establishment of design programs which may include signage, street furniture, landscape, lighting, pavement treatments, public art, and architectural design.
- Policy 79** Provide for an orderly outward expansion of new “urban” development (any commercial, industrial, and residential development have 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 80** Assure that General Plan Amendment proposals for the conversion of designated agricultural lands to urban development occur in an orderly and logical manner giving full consideration to the effect on existing agricultural areas (see Chapter V, Conservation/Soils and Agriculture Policies 3 and 14).
- Policy 104** As part of the environmental review procedure, and evaluation of the significance of paleontological, archaeological, and historical resources and the impacts 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 shall be encouraged by developing and implementing incentives such as building and planning application permit fee waivers, Mills Act contracts, grants and loans, implement 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.

Chapter III: Circulation Element

- Goal 1** Minimize the impact of truck traffic on circulation, and on noise-sensitive land uses.
- Policy 2** Establish the following standards for the street system. (Standards included in General Plan, Page III-12)
- 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.
- 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 grade separations for intersections unable to meet minimum level of service standards.
- Policy 12** Maintain the integrity of the circulation system.
- Policy 17** Require buildings expected to be serviced by delivery trucks to provide off-street facilities for access and parking.
- Policy 18** Provide and maintain landscaping on both sides and in the median of arterial streets within incorporated areas. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs; blank irrigation conduit only will be provided within the median of arterial streets.
- Policy 19** Provide and maintain landscaping on both sides of collector streets. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs.
- Policy 20** Prohibit parking on new arterials in incorporated areas. In unincorporated areas, prohibit parking when traffic studies warrant elimination. Allow parking on collects and residential streets.
- Policy 22** Design transportation improvements to minimize noise impacts on adjacent uses.
- 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 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.
- Policy 36** Prevent streets and intersections from degrading below Level of Service “C” where possible due to physical constraints (as defined in a Level of Service Standard) or when the existing Level of Service is below “C” prevent where possible further degradation due to new development or expansion of existing development with a three part mitigation program: Adjacent right-of-way dedication, access improvements and/or an area-wide impact fee. The area-wide impact fee would be used where the physical change for mitigation are not possible due to existing development and/or the mitigation measure is part of a larger project, such as freeways, which will be built at a later date.

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 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.

Transit

Goal 4 Reduce traffic congestion and parking requirements and improve air quality through improved transportation services.

Goal 8 Encourage businesses and government to use flexible and staggered work hours so that travel demand is spread more evenly throughout the day.

Bikeways

Policy 5 Consider bicycle safety when implementing improvements for automobile traffic operations.

Policy 7 Provide bicycle parking facilities at activities centers such as shopping centers, employment sites, and public buildings.

Parking

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.

Policy 3 Ensure that adequate on-site parking supply and parking lot circulation is provided on all site plans in accordance with the adopted parking standards.

Chapter V: Conservation Element

Biological Resources

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 for 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 3 Discourage, where appropriate, the use of off-road vehicles to protect designated sensitive biological and natural resources.

Soils and Agriculture

Goals

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

Policies

Policy 2 Review projects that proposed subdividing or urbanizing prime agricultural land to ascertain how continued agricultural production in the vicinity will be affected.

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 14 When considering proposals to convert designated agricultural lands to nonagricultural use, the decision-making body of the City and County shall evaluate the following factors to determine the appropriateness of the proposal:

- Soil quality
- Availability of irrigation water
- Proximity to nonagricultural uses
- Proximity to intensive parcelization
- Effect on properties subject to “Williamson Act” land use contracts
- Ability to be provided with urban services (sewer, water, roads, etc.)
- Ability to affect the application of agricultural chemicals on nearby agricultural properties
- Ability to create a precedent-setting situation that leads to the premature conversion of prime agricultural lands
- Demonstrated project need
- Necessity of buffers such as lower densities, setbacks, etc.

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 the 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.

Air Quality

Goals

Goal 1 Promote air quality that is compatible with health, wellbeing, 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 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 Air Pollution Control District 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:

- a. Alternative access routes to reduce traffic congestion.
- b. Development phasing to match road capacities.
- c. Buffers include increasing 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 6** Participate in alternative fuel programs.
- Policy 7** Participate in regional air quality studies and comprehensive programs for air pollution reduction.
- Policy 8** Promote and assist in the development and implementation of the San Joaquin Valley wide Air Quality Study.
- 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 16** Cooperate with Golden Empire Transit and Kern Regional Transit to provide a comprehensive mass transit system for Bakersfield; require large-scale new development to provide related improvements, such as bus stop shelters and turnouts.
- Policy 17** Continue to participate with the vehicle smog-check and maintenance programs.
- 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 24** Encourage employers to implement programs for staggered work hours, compressed work weeks, or other measures that relieve vehicle congestion during commute periods or reduce total work trips.
- 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 26** Consider restriction or elimination of on-street parking for the purpose of providing increased to or intersection capacity during peak hours.
- Policy 29** Encourage the use of alternative fuel and low or zero-carbon emission vehicles.

Chapter VII: Noise Element

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 [of the General Plan]. 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.
- 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 [of the General Plan] in areas containing residential or other noise-sensitive land uses.

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.

- d) 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.
- e) 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.

Standards for Cumulative Noise Impacts

A significant increase in ambient noise level affective existing noise-sensitive land uses (receptors), requiring the adoption of practical and feasible mitigation measures, is deemed to occur where a project will cause:

- An increase in ambient noise level of 1dB or more over 65dB CNEL, where the existing ambient level is 65dB CNEL or less;
- 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.

Chapter VIII: Safety Element

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.

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

Policy 13 Determine 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.

Public Safety

Goals

Goal 1 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/transportation/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 11 Protect and maintain watershed integrity within Kern County.

Policy 12 Where recommended by appropriate local, State, or federal agencies for discretionary projects, soils shall be tested for concentrations or 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 effects to human health as required by the Department of Environmental Services.

Chapter X: Public Services and Facilities Element

General Utility Services

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.

Water Distribution

Policy 3 Require that all new development proposals have an adequate water supply available.

Storm Drainage

Implementation Measures

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.

Street Lighting

Goal 1 Provide uniform and adequate public lighting for all developed and developing portions of the Planning area.

Policy 4 Require developers to install street lighting in all new developments in accord with adopted City standards and county policies.

Solid Waste

Policy 1 Comply with, and update as required, the adopted county solid waste management plan.

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.

Policy 33 Monitor the parkland dedication ordinance with in lieu fee provisions.

Implementation Measures

Measure 9 Modify the subdivision and building ordinances to:

- a) Require that local parks be developed at a minimum rate of 2.5 acres per 1,000 population.
- b) Allow developers (within the City) neighborhood park credit as follows:
 - 1) Up to seven tenths (0.7) of one acre per 1,000 population credit for on-site recreation or park-like development in Planned Unit Districts (PUDs), open spaces, or publicly owned lands;
 - 2) Up to one and one-half (1.5) acre per 1,000 population credit for on-site recreation or park-like development located within land encumbered with electrical transmission line easements and incorporated as a functional design component of the residential development.
- c) Require developers to show park locations on development plans.
- d) Establish as a target mini-parks and neighborhood parks within the City of Bakersfield's jurisdiction be accessibly located within three-quarters of a mile of residents they are intended to serve.
- e) Require, where feasible, parks be developed with the following minimum acreage standards:
 - Mini-parks 2.5 usable acres
 - Neighborhood Parks 10.0 usable acres
 - Community Parks 20.0 usable acres
- f) Allow neighborhood park acreage requirements to be met by community parks when community parks are within or at boundaries of neighborhoods.
- g) Neighborhood parks may range in size from 6 to 10 acres at the discretion of the Director of Recreation and Parks. Reason for a size less than 10 acres may include Master Park planning for a given area, land availability in areas with fragmented ownership or restrictions to a typical park service 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 Zoning Ordinance 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.

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 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), which is required by California's Sustainable Communities and Climate Protection Act, of Senate Bill (SB) 375. The California Air Resources Board (ARB) set Kern County greenhouse gas (GHG) emissions reductions from passenger vehicles and light-duty trucks by 9 percent per capita by 2020 and 15 percent 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 need and transportation planning. Kern Council of Governments (Kern COG) engaged in the RHNA 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 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 our 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).

4.11.4 Impacts and Mitigation Measures

Methodology

The potential impacts associated with the project are evaluated on a qualitative basis through a comparison of the existing land use and the proposed land uses, considering the applicable planning goals and policies identified above. Compliance with the aforementioned goals and 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 effect described under the thresholds of significance below occurs as a result of the project. The evaluation of the project impacts is based on professional judgment, analysis of the County's land use policies and the significance criteria suggested in California Environmental Quality Act (*CEQA*) *Guidelines* Appendix G, 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 identified in *CEQA Guidelines* Appendix G, to determine whether a project could potentially have a significant adverse effect on land use.

A project could have a significant adverse effect on land use if the project would:

- a. Physically divide an established community;
- b. 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.

Project Impacts

Impact 4.11-1: The project would cause a significant environmental impact due to physically dividing an established community.

The components of the proposed project would be developed on vacant, undeveloped land that is currently used as an active agricultural field. Land uses surrounding the project site are primarily land used for agricultural production or row crops. The Kern Island Canal, which runs north-south in the project vicinity, is approximately 1 mile east of the project site. The nearest residences are approximately 400 feet southwest from the southwestern extent of the site and approximately 0.21 miles west of the northern western corner of the project site. The project site is approximately 1 mile directly west of the unincorporated community of Alameda. Given the distance to the existing residential communities, development of the proposed project would not physically divide or restrict access to these established communities. Additionally, there would be no permanent road closures or other physical barriers that would restrict movement across roadways adjacent to the project site. Therefore, impacts related to the physical division of an established community would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be 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.

The Kern County Metropolitan Bakersfield General Plan and the Kern County Zoning Ordinance establish land use policies and regulations that are applicable to the project. The following discussion evaluates the project's consistency with these plans, policies and regulations in the lands for which the County has jurisdiction. Implementation of the proposed project would require approval of a General Plan Amendment to the Land Use Designation, a Change in Zone Classification, Conditional Use Permits, a Precise Development Plan, a Zone Variance, an Exclusion from Agricultural Preserve No. 10, and Tentative Parcel Map from the Kern County Planning Commission and the Kern County Board of Supervisors and would allow the construction and operation of a single-story warehouse and distribution facility.

The project site is zoned A (Exclusive Agriculture). According to Kern County Zoning Ordinance 19.36.030, the proposed project would require the approval of a Conditional Use Permit (CUP) to allow for the construction and operation of a temporary concrete batch plant during construction pursuant to 19.36.030 C.1 and a permanent on-site wastewater treatment facility pursuant to 19.36.030 H. A CUP would also be required for the construction and operation of the proposed substation pursuant to 19.36.030 G. Additionally, the proposed project would require a Zone Change Classification from Exclusive Agriculture (A) to Light Industrial/Precise Development Plan (M-1 PD). With this, the proposed project would be consistent with the M-1 PD zoning classification and would allow for the construction and operation of the project. In addition, as described in Chapter 3, *Project Description*, the project site is not encumbered by an existing Williamson Act Land Use contract; thus, the proposed project would not require a Williamson Act Land Use Contract Cancellation to facilitate the project. The proposed project also includes a request for an amendment to the Kern County Metropolitan Bakersfield General Plan to change the existing General Plan map code for the project site from Intensive Agriculture (R-IA) to Light Industrial (LI), as shown in **Chapter 3, Project Description, Figure 3-6, Proposed General Plan Land Use Designations**.

Metropolitan Bakersfield General Plan

Table 4.11-2, Consistency Analysis with Metropolitan Bakersfield General Plan for Land Use, 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 EIR. As evaluated in detail in **Table 4.11-2** below, the project is consistent with the goals and policies of the Metropolitan Bakersfield General Plan.

Kern County Zoning Ordinance

As described in Section 4.11.2, *Environmental Setting*, the project is subject to the provisions of the Kern County Zoning Ordinance and is included within Kern County Agricultural Preserve Number 10 boundary, as is the standard practice in Kern County for any land that is zoned A (Exclusive Agriculture). As shown in **Table 4.11-1**, above, and **Figure 3-9, Existing Zoning**, in **Chapter 3, Project Description**, the Kern County Zoning Ordinance designates portions of the project site as being within the A (Exclusive Agriculture) zone district. The project proponent is requesting a CUP to allow for the construction and operation of a temporary concrete batch plant during construction pursuant to 19.36.030 C.1 and a permanent on-site wastewater treatment facility pursuant to 19.36.030 H. A CUP would also be required

for the construction and operation of the proposed substation pursuant to 19.36.030 G. Because the project requires a Zone Classification Change from A to M-1 PD, the proposed project would be consistent with the new zoning classification and be consistent with its Kern County Zoning Ordinance land use designation as well. As such, with approval of the CUP and the Zone Classification Change, the proposed project would be consistent with applicable land use policies and regulations, and impacts related to consistency with the Zoning Ordinance would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

The geographic scope of analysis for this section of the Draft EIR is the southern portion of the San Joaquin Valley. This scope was selected to analyze the cumulative impact to regional land use patterns of project development in the area, and because there is some uniformity to existing land use patterns in this region. As described in more detail in **Chapter 3, Project Description, Table 3-5, Cumulative Projects List**, of this Draft EIR, 14 projects are proposed within a 1 mile radius of the proposed project, the geographic scope, all of which are for commercial or industrial projects. While the surrounding area is still relatively rural in nature, the project, along with related projects, has the potential to influence proposed land uses in and around the project site. However, based on the location of cumulative projects in relation to existing residences, the proposed project, in combination with other related cumulative projects, would not disrupt or divide the existing community. Future development would be subject to the goals and policies in the Metropolitan Bakersfield General Plan, the Kern County Zoning Ordinance, and other planning documents, as applicable. The cumulative projects requiring General Plan Amendments also would require approval by the County. Consistency with the County's applicable General Plan policies and Zoning Ordinance (and any other applicable planning documents) would ensure compliance and orderly development of the proposed project and other related cumulative projects. Additionally, all cumulative projects are subject to environmental review and compliance with all federal, State, and local policies and plans. As such, cumulative impacts related to land use would be less than significant.

Moreover, the proposed project's incremental contribution to the less than significant cumulative impacts would not be cumulatively considerable. The anticipated impacts of the proposed project in conjunction with cumulative development in the area of the project site would increase the urbanization and result in the loss of agricultural space within the San Joaquin Valley region of Kern County. However, potential land use impacts require evaluation on a case-by-case basis because of the interactive effects of a specific development and its immediate environment. As discussed above, the proposed project would have no impact with respect to established communities. Further, as described in **Table 4.11-2** below, the proposed project would be consistent with the goals and policies of the Metropolitan Bakersfield General Plan and would not lead to the premature conversion of agricultural land. In addition, with approval of the CUP, Zone Classification Change, and General Plan Land Use Amendment, development of the proposed project would be an allowable use that would not conflict with the land use or zoning classification for the project site.

The proposed project would develop the project site in compliance with the Metropolitan Bakersfield General Plan and Kern County Ordinance Code, thus, the proposed project would not conflict with existing land use plans, policies, or regulation or other applicable plans or policies as described in **Impact 4.11-1**. The County would require review of all future land development within the project area through the discretionary permit process (and/or to ensure conformance with County development standards and regulations) to demonstrate consistency with the General Plan (as applicable) and Zoning Ordinance. As the proposed project would not result in significant land use or planning conflicts, it would not contribute to an overall cumulative land use or planning conflicts in the area. Therefore, as proposed the project would be consistent with the goals and policies of the Metropolitan Bakersfield General Plan and the Kern County Zoning Ordinance and would therefore not contribute to a cumulatively considerable impact regarding land use. Cumulative land use impacts would be considered less than significant.

Mitigation Measures

No mitigation measures are required.

Level of Significance after Mitigation

Cumulative impacts would be less than significant.

Project Consistency with the Metropolitan Bakersfield General Plan

Table 4.11-2: *Consistency Analysis with Metropolitan Bakersfield General Plan for Land Use* summarizes the consistency of the project with all applicable goals and policies of the Metropolitan Bakersfield General Plan and relevant planning documents that are applicable to the project.

TABLE 4.11-2: CONSISTENCY ANALYSIS WITH METROPOLITAN BAKERSFIELD GENERAL PLAN FOR LAND USE

Goals and Policies	Consistency Determination	Project Consistency
CHAPTER II: LAND USE ELEMENT		
<p>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.</p>	<p>Consistent.</p>	<p>The proposed project would develop a concrete tilt-up warehouse. The facility would primarily facilitate material handling equipment and warehouse uses, receiving shipments from the Port of Long Beach as well as from areas throughout the San Joaquin Valley. As described in Section 4.14, Population and Housing, the proposed project would create between 1,464 and 1,830 full time positions and would operate 24 hours per day, 365 days per year.</p>
<p>Goal 2: Accommodate new development which provides a full mix of uses to support its population.</p>	<p>Consistent.</p>	<p>See <i>Land Use Element</i>, Goal 1, above.</p>
<p>Goal 3: Accommodate new development which is compatible with and complements existing land uses.</p>	<p>Consistent with the implementation of Mitigation Measure MM 4.2-1 through Mitigation Measure MM 4.2-4.</p>	<p>The proposed project would develop a concrete tilt-up warehouse on a site that is currently used for agricultural land uses and is surrounded by agricultural land uses. As described in Section 4.2, Agricultural and Forestry Resources, the proposed project would rezone the existing project site from Exclusive Agriculture (R-IA) to Light Industrial/Precise Development Plan (M-1 PD) and would replace 93.74 acres of farmland. However, through the implementation of Mitigation Measures MM 4.2-1 through MM 4.2-4, the proposed project would be required to comply with all County zoning and land use requirements through site plan review and included forms, as well as submission of a summary report describing how the project would reduce conflicts to the extent feasible between the project’s operation and the continued use of adjacent properties zoned A (Exclusive Agriculture), and to comply with County requirements</p>

Goals and Policies	Consistency Determination	Project Consistency
		<p>for the use of herbicides on the property. With implementation of Mitigation Measure MM 4.2-1 through MM 4.2-4, the proposed project would be complementary of existing land uses.</p>
<p>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.</p>	<p>Consistent with the implementation of Mitigation Measure MM 4.2-1.</p>	<p>See <i>Land Use Element</i>, Goal 3, above.</p>
<p>Goal 6: Accommodate new development that is sensitive to the natural environment, and accounts for environmental hazards.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.4-1 through MM 4.4-11.</p>	<p>Hazards are evaluated in Sections 4.9, <i>Hazards and Hazardous Materials</i>, of this Draft EIR. In accordance with all applicable local, State, and federal regulations. There are no significant and unavoidable environmental hazards related to wildfire, geology or soils, or hazardous materials. Additionally, construction of the proposed project would be sensitive to the natural environment.</p> <p>Biological resources are evaluated in Section 4.4, <i>Biological Resources</i>, of this Draft EIR. The proposed project includes Mitigation Measures MM 4.4-1 through 4.4-11 to reduce potential impacts to all species both during project construction and operation. Additionally, the project would be developed and operated in accordance with all local, State, and federal laws pertaining to the preservation of sensitive species.</p> <p>Cultural resource impacts are evaluated in Section 4.5, <i>Cultural Resources</i>, of this Draft EIR. Consistent with this measure, impacts to archaeological and historical resources are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.</p>
<p>Goal 7: Establish a built environment which achieves a compatible functional and visual relationship among individual buildings and sites.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.1-1 through MM 4.1-5.</p>	<p>Aesthetic impacts are evaluated in Section 4.1, <i>Aesthetics</i>, of this Draft EIR. As part of the proposed project’s design features, vegetation removal would be limited during project construction. The proposed project would utilize heavy use of landscaping and screen trees to further blend the project in with the project in with its surroundings. As detailed in Mitigation Measures MM 4.1-1 through MM 4.1-3, the proposed project would be</p>

Goals and Policies	Consistency Determination	Project Consistency
		<p>required to comply with site review and design and landscaping requirements as required by County regulations. Additionally, as detailed in Mitigation Measures MM 4.1-4 and MM 4.1-5, the proposed project would be required to comply with the Dark Skies Ordinance and submit and outdoor lighting plan so as to reduce impacts to glare and lighting to the maximum extent possible.</p>
<p>Goal 8: Target growth companies that meet clean air requirements, and create sustainable employment in jobs paying higher wages.</p>	<p>Consistent with implementation of Mitigation Measures MM 4.3-1 through 4.3-10.</p>	<p>Impacts to air quality are analyzed in Section 4.3, Air Quality, in this Draft EIR. The proposed project would be consistent with all federal, State, and local regulations related to air quality.</p> <p>Impacts related to employment are evaluated in Section 4.14, Population and Housing. As stated in <i>Land Use Element</i>, Goal 3, the proposed project would create between 1,464 and 1,830 full time positions.</p>
<p>Policy 5: Provide for streetscape improvements, landscape, and signage which uniquely identify major and/or historic residential neighborhoods (I-8).</p>	<p>Consistent.</p>	<p>Record searches within the project area did not identify any prehistoric or historic cultural resources in the project area. As detailed in Section 4.1, Aesthetics, the proposed project would be developed in accordance with all applicable State and local design guidelines and regulations.</p>
<p>Policy 7: Provide for the retention of historic residential neighborhoods as identified in the Historical Resources Element if adopted by the City of Bakersfield (I-1, I-6, I-8).</p>	<p>Consistent.</p>	<p>See <i>Land Use Element</i>, Policy 5, above.</p>
<p>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.</p>	<p>Consistent.</p>	<p>Impacts to hazardous waste are analyzed in Section 4.9, Hazards and Hazardous Materials. The proposed project would be required to comply with all applicable federal, State, and local policies and regulations.</p>
<p>Policy 12: Where recommended by appropriate local, State, or federal agencies for discretionary projects, soils shall be tested for concentrations or agricultural chemicals prior to grading permit approval, whenever feasible. Contaminated soils shall be excavated and</p>	<p>Consistent.</p>	<p>Impacts to contaminated soils are analyzed in Section 4.9, Hazards and Hazardous Materials. A Phase I Environmental Site Assessment (Phase I ESA) was prepared for the proposed project site and found no evidence of Recognized Environmental Conditions</p>

Goals and Policies	Consistency Determination	Project Consistency
disposed of at a certified hazardous waste disposal facility whenever necessary.		(REC), Historical Recognized Environmental Conditions (HREC), or Controlled Recognized Environmental Conditions (CREC).
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 effects to human health as required by the Department of Environmental Services	Consistent.	See <i>Land Use Element</i> , Policy 8.
Policy 27: Require that new commercial uses maintain visual compatibility with single-family residences in areas designated for historic preservation (I-1, I-6, I-8).	Consistent.	See <i>Land Use Element</i> , Policy 5, above.
Policy 34: 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 Mitigation Measures MM 4.1-1 through MM 4.1-5.	See <i>Land Use Element</i> , Goal 7, above.
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 with the implementation of Mitigation Measures MM 4.1-1 through MM 4.1-5, and Mitigation Measure MM 4.13-1 through MM 4.13-3.	See <i>Land Use Element</i> , Goal 7, above.
Policy 37: Street frontages along all new industrial development shall be landscaped.	Consistent with the implementation of Mitigation Measure MM 4.1-3.	See <i>Land Use Element</i> , Goal 7, above.
Policy 38: Minimize impacts of industrial traffic on adjacent residential parcels through the use of site plan review and improvement standards.	Consistent.	Aesthetic impacts are evaluated in Section 4.1, Aesthetics , of this Draft EIR. The proposed project would be subject to design review from the County and all applicable policies.
Policy 61: Coordinate a consistent design vocabulary between city and county for all public signage, including fixture type, lettering, colors, symbols, and logos.	Consistent.	See <i>Land Use Element</i> , Policy 38, above.
Policy 63: Encourage the use of creative and distinctive signage which establishes a distinctive image for the	Consistent.	See <i>Land Use Element</i> , Policy 38, above.

Goals and Policies	Consistency Determination	Project Consistency
<p>Planning area and identifies principal entries to the metropolitan area, unique districts, neighborhoods and locations.</p>		
<p>Policy 67: Develop a distinctive identity for the Bakersfield region which differentiates it as a unique place in the Southern San Joaquin Valley.</p>	<p>Consistent.</p>	<p>See <i>Land Use Element</i>, Policy 38, above.</p>
<p>Policy 69: Allow variation in the use of street trees, shrubs, lighting, and other details to give streets better visual continuity and increased shade canopy.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.1-1 through MM 4.1-5.</p>	<p>See <i>Land Use Element</i>, Goal 7, above.</p>
<p>Policy 70: Provide for the installation of street trees which enhance pedestrian activity and convey a distinctive and high quality visual image.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.1-1 through MM 4.1-5.</p>	<p>See <i>Land Use Element</i>, Goal 7, above.</p>
<p>Policy 74: Encourage the establishment of design programs which may include signage, street furniture, landscape, lighting, pavement treatments, public art, and architectural design.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.1-1 through MM 4.1-5.</p>	<p>See <i>Land Use Element</i>, Goal 7, above.</p>
<p>Policy 79: Provide for an orderly outward expansion of new “urban” development (any commercial, industrial, and residential development have 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.</p>	<p>Consistent.</p>	<p>See <i>Land Use Element</i>, Policy 38, above.</p>
<p>Policy 80: Assure that General Plan Amendment proposals for the conversion of designated agricultural lands to urban development occur in an orderly and logical manner giving full consideration to the effect on existing agricultural areas (see Chapter V, Conservation/Soils and Agriculture Policies 3 and 14).</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.2-1 through 4.2-4.</p>	<p>See <i>Land Use Element</i>, Goal 3, above.</p>
<p>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</p>	<p>Consistent</p>	<p>Cultural resource impacts are evaluated in Section 4.5, Cultural Resources, of this Draft EIR. Consistent with this measure, impacts to archaeological and historical</p>

Goals and Policies	Consistency Determination	Project Consistency
resources shall be conducted and appropriate mitigation and monitoring included for development projects.		resources are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.
Policy 106: The preservation of significant historical resources as identified on Table 4.10-1 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.	Consistent	Cultural resource impacts are evaluated in Section 4.5, Cultural Resources , of this Draft EIR. The proposed project site is currently used for agricultural production and is covered with row crops. Significant historical resources are not present on the project site. As such, the proposed project would not require the preservation of any significant historical resources through City-provided incentives.
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.	Consistent with implementation of Mitigation Measures MM 4.5-1 through MM 4.5-4.	During record searches and pedestrian field surveys and of the project site, no archaeological or paleontological resources were identified at the project site. However, the implementation of Mitigation Measures MM 4.5-1 and MM 4.5-4 details requirements for construction crew training, as well as procedures prior to ground disturbance and in the event of the discovery of any archaeological or human remains during construction and operation.

CHAPTER III: CIRCULATION ELEMENT

Streets		
Goal 1: Minimize the impact of truck traffic on circulation, and on noise-sensitive land uses.	Consistent with implementation of Mitigation Measure MM 4.17-1 through MM 4.17-3.	As described in Section 4.17, Transportation , the proposed project would not reduce the, reduce the Level of Service (LOS) of surrounding roadways and intersection below an LOS C during all construction and operation activities. Implementation of Mitigation Measures MM 4.17-1, MM 4.17-3 , which 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 LOS standard for the surrounding area. The proposed project would include intersection improvements for the intersection of Houghton Road and Union Avenue, as well as roadway frontage improvements along Houghton Road and Wible Road along the project frontage.

Goals and Policies	Consistency Determination	Project Consistency
Policy 2: Establish the following standards for the street system. (Standards included in General Plan, Page III-12)	Consistent with implementation of Mitigation Measure MM 4.17-1 through MM 4.17-3 .	See <i>Circulation Element</i> , Goal 1, above.
Policy 3: Provide additional right-of-way pavement width to accommodate turn lands at intersections	Consistent with implementation of Mitigation Measures MM 4.17-1 through MM 4.17-3 .	See <i>Circulation Element</i> , Goal 1, above.
Policy 5: Place traffic signals to minimize vehicular delay.	Consistent with implementation of Mitigation Measures MM 4.17-1 through MM 4.17-3 .	See <i>Circulation Element</i> , 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 with implementation of Mitigation Measures MM 4.17-1 through MM 4.17-3 .	See <i>Circulation Element</i> , Goal 1, above.
Policy 7: Minimize direct and uncontrolled property access from arterials.	Consistent with implementation of Mitigation Measures MM 4.17-1 through MM 4.17-3 .	See <i>Circulation Element</i> , Goal 1, above.
Policy 8: Limit full access median breaks on arterials to a maximum of three per mile and include left-turn lanes at each.	Consistent with implementation of Mitigation Measures MM 4.17-1 through MM 4.17-3 .	See <i>Circulation Element</i> , Goal 1, above.
Policy 9: Consider the construction grade separations for intersections unable to meet minimum level of service standards.	Consistent with implementation of Mitigation Measures MM 4.17-1 through MM 4.17-3 .	See <i>Circulation Element</i> , Goal 1, above.
Policy 12: Maintain the integrity of the circulation system	Consistent	See <i>Circulation Element</i> , 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, Project Description , the proposed project would include approximately 1,000 automobile, 702 Truck Trailer and 135 Dock Trailers parking spaced on-site. Additionally, the proposed project would include 200 EV Charging Stations and 22 ADA Accessible parking spots.
Policy 18: Provide and maintain landscaping on both sides and in the median of arterial streets within incorporated areas. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs; blank irrigation conduit only will be provided within the median of arterial streets.	Consistent with the implementation of Mitigation Measure MM 4.1-1 through MM 4.1-5 .	See <i>Land Use Element</i> , Goal 7, above.

Goals and Policies	Consistency Determination	Project Consistency
<p>Policy 19: Provide and maintain landscaping on both sides of collector streets. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs.</p>	<p>Consistent with the implementation of Mitigation Measure MM 4.1-1 through MM 4.1-5.</p>	<p>See <i>Land Use Element</i>, Goal 7, above.</p>
<p>Policy 20: Prohibit parking on new arterials in incorporated areas. In unincorporated areas, prohibit parking when traffic studies warrant elimination. Allow parking on collects and residential streets.</p>	<p>Consistent.</p>	<p>See <i>Circulation Element</i>, Policy 17, above.</p>
<p>Policy 22: Design transportation improvements to minimize noise impacts on adjacent uses.</p>	<p>Consistent.</p>	<p>As described in Section 4.13, the proposed project would not increase construction or operation related noise level beyond in excess of established standards.</p>
<p>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.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-1 through MM 4.17-3.</p>	<p>See <i>Circulation Element</i>, Goal 1, above.</p>
<p>Policy 35: Require new 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.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-1 through MM 4.17-3.</p>	<p>See <i>Circulation Element</i>, Goal 1, above.</p>
<p>Policy 36: Prevent streets and intersections from degrading below Level of Service “C” where possible due to physical constraints (as defined in a Level of Service Standard) or when the existing Level of Service is below “C” prevent where possible further degradation due to new development or expansion of existing development with a three part mitigation program: Adjacent right-of-way dedication, access improvements and/or an area-wide impact fee. The area-wide impact fee would be used where the physical change for mitigation are not possible due to existing development and/or the mitigation measure is part of a larger project, such as freeways, which will be built at a later date.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-1 through MM 4.17-3.</p>	<p>See <i>Circulation Element</i>, Goal 1, above.</p>

Goals and Policies	Consistency Determination	Project Consistency
<p>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 project.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-1 through MM 4.17-3.</p>	<p>See <i>Circulation Element</i>, Goal 1, above.</p>
<p>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.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-2.</p>	<p>As described in Section 4.17, Transportation, the proposed project would be required to prepare a Transportation Demand Management (TDM) prior to the issuance of grading permits in an effort to reduce the proposed project’s Vehicle Miles Traveled (VMT) emissions. Included within the TDM, the proposed project would be required to provide support and facilities for alternative modes of transportation, including carpooling, public transit, and bicycling.</p>
Transit		
<p>Goal 4: Reduce traffic congestion and parking requirements and improve air quality through improved transportation services.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-2.</p>	<p>See Policy 39, <i>Circulation Element</i>, above.</p>
<p>Goal 8: Encourage businesses and government to use flexible and staggered work hours so that travel demand is spread more evenly throughout the day.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-1 through MM 4.17-3.</p>	<p>See <i>Circulation Element</i>, Goal 1, above.</p>
Bikeways		
<p>Policy 5: Consider bicycle safety when implementing improvements for automobile traffic operations.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-2.</p>	<p>See Policy 39, <i>Circulation Element</i>, above.</p>
<p>Policy 7: Provide bicycle parking facilities at activities centers such as shopping centers, employment sites, and public buildings.</p>	<p>Consistent with implementation of Mitigation Measure MM 4.17-2.</p>	<p>See Policy 39, <i>Circulation Element</i>, above.</p>
Parking		
<p>Goal 1: Provide an efficient parking system to respond to the needs of motorists.</p>	<p>Consistent</p>	<p>See <i>Circulation Element</i>, Policy 17, above.</p>
<p>Goal 2: Satisfy parking requirements in all new developments (residential, commercial, industrial, etc.) through off-street facilities.</p>	<p>Consistent</p>	<p>See <i>Circulation Element</i>, Policy 17, above.</p>

Goals and Policies	Consistency Determination	Project Consistency
Policy 3: 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 <i>Circulation Element</i> , Policy 17, above.

CHAPTER V: CONSERVATION ELEMENT

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.	Consistent with the implementation of Mitigation Measure MM 4.4-1 through MM 4.4-11 .	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 Mitigation Measures MM 4.4-1 through MM 4.4-11 with the intent to reduce potential impacts to all species both during project construction. 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.
Goal 2: To conserve and enhance habitat areas for designated “sensitive” animal and plant species.	Consistent with the implementation of Mitigation Measures MM 4.4-1 through MM 4.4-11 .	As discussed in Section 4.4 , <i>Biological Resources</i> , the project site is currently used for agricultural purposes and thus provides very little opportunity for habitat areas to sensitive species. Nevertheless, Section 4.4 includes Mitigation Measures MM 4.4-1 through MM 4.4-11 in order to avoid impacts to expected sensitive species in the area during construction activities.
Policy 1: Direct development away from “sensitive biological resource” areas, unless effective mitigation measures can be implemented.	Consistent with the implementation of Mitigation Measures MM 4.4-1 through MM 4.4-11 .	See Goal 2, <i>Biological Resources</i> , above.
Policy 3: Discourage, where appropriate, the use of off-road vehicles to protect designated sensitive biological and natural resources.	Consistent with the implementation of Mitigation Measures MM 4.4-1 through MM 4.4-11 .	See Goal 2, <i>Biological Resources</i> , above.
Soils and Agriculture		
Goal 1: Provide for the planned management, conservation, and wise utilization of agricultural land in the planning area.	Inconsistent.	Impacts to agricultural resources are discussed in Section 4.2 , <i>Agriculture and Forestry Resources</i> . The proposed project site is currently used for agricultural production and is covered with row crops. The proposed project would result in the conversion of 69.03 acres of Prime

Goals and Policies	Consistency Determination	Project Consistency
		Farmland and 24.71 acres of Unique Farmland to nonagricultural uses. No feasible mitigation exists to mitigate impacts associated with the conversion of agricultural resources to nonagricultural uses.
<p>Policy 2: Review projects that proposed subdividing or urbanizing prime agricultural land to ascertain how continued agricultural production in the vicinity will be affected.</p>	Consistent	Agricultural resource impacts are evaluated in Section 4.2, <i>Agricultural and Forestry Resources</i> , of this Draft EIR. Consistent with this measure, impacts to agricultural resources are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.
<p>Policy 7: Land use patterns, grading, and landscaping practices shall be designed to prevent soil erosion while retaining natural watercourses when possible.</p>	Consistent with the implementation of Mitigation Measures MM 4-7.6 through MM 4.7-8.	As described in Section 4.7, <i>Geology and Soils</i> , the proposed project would be required to reduce grading and ground disturbance to the greatest extent feasible and to implement best management practices (BMPs) to limit on-site and off-site erosion. Additionally, the proposed project would be required to implement a Sediment and Erosion Control Plan as ensured by Mitigation Measure MM 4.7-8. This Sediment and Erosion Control Plan in order to reduce impacts to the maximum extent feasible.
<p>Policy 12: Prohibit premature removal of ground cover in advance of development and require measures to prevent soil erosion during and immediately after construction.</p>	Consistent with the implementation of Mitigation Measures MM 4-7.6 and MM 4.7-8.	See Policy 7, <i>Conservation Element</i> , above.
<p>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.</p>	Consistent with the implementation of Mitigation Measures MM 4-7.6 and MM 4.7-8.	See Policy 7, <i>Conservation Element</i> , above.
<p>Policy 14: When considering proposals to convert designated agricultural lands to nonagricultural use, the decision-making body of the City and County shall evaluate the following factors to determine the appropriateness of the proposal:</p> <ul style="list-style-type: none"> • Soil quality • Availability of irrigation water • Proximity to nonagricultural uses • Proximity to intensive parcelization 	Consistent	Agricultural resource impacts are evaluated in Section 4.2, <i>Agricultural and Forestry Resources</i> , of this Draft EIR. Consistent with this measure, impacts to agricultural resources are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.

Goals and Policies	Consistency Determination	Project Consistency
<ul style="list-style-type: none"> • Effect on properties subject to “Williamson Act” land use contracts • Ability to be provided with urban services (sewer, water, roads, etc.) • Ability to affect the application of agricultural chemicals on nearby agricultural properties • Ability to create a precedent-setting situation that leads to the premature conversion of prime agricultural lands • Demonstrated project need • Necessity of buffers such as lower densities, setbacks, etc. 		
Water Resources		
<p>Goal 1: Conserve and augment the available water resources of the planning area.</p>	Consistent	<p>Impacts to water resources are evaluated in Section 4.19, Utilities and System Services, of this Draft EIR. Compared to existing the existing agricultural land uses at the project site, the proposed project would have a reduced demand on water resources. Additionally, the proposed project would be served by CalWater instead of groundwater as has been the case for current and historical demands. As such, the proposed project would result in a reduction in total water demand and a reduction in demand on the underlying subbasin.</p>
<p>Goal 2: Assure that adequate groundwater resources remain available to the planning area.</p>	Consistent	<p>Section 4.17, Utilities and Service Systems, of this Draft EIR, provides an analysis of water supplies available to serve the project. A project-specific Preliminary Drainage Study was prepared for this analysis. While the proposed project would increase the impervious surface coverage of the area, it would also include an on-site storm drainage system designed to encourage runoff to percolate into the soil, thus ensuring that groundwater infiltration rates are not reduced.</p> <p>Additionally, the proposed project would not rely on groundwater to meet project water demands. As such, the proposed project would result in a reduction in demand on groundwater resources in comparison to current and historical land uses and water demand.</p>

Goals and Policies	Consistency Determination	Project Consistency
Goal 3: Assure the adequate surface water supplies remain available to the planning area.	Consistent	See <i>Water Resources</i> , Goal 1, above.
Goal 5: Achieve a continuing balance between competing demands for water resource usage.	Consistent	See <i>Water Resources</i> , Goal 1, above.
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	See <i>Water Resources</i> , Goal 2, above.
Policy 6: Protect planning area groundwater resources from further quality degradation.	Consistent with the implementation of Mitigation Measures MM 4.7-2 and MM 4.9-3.	As described in Section 4.7, <i>Geology and Soils</i> , the proposed project would be required to prepare a Storm Water Pollution Prevention Plan (SWPPP) that would include BMPs designed to prevent any contamination to water resources during construction activities in accordance with the Kern County Grading Code. Additionally, the Storm Water Quality Assessment Memorandum includes BMPs to be implemented during project operation, and the project’s Hazardous Materials Business Plan (HMBP) would include BMPs regarding the handling and storage of hazardous materials, as detailed in Mitigation Measure MM 4.9-3 . As such, impacts to groundwater quality degradation would be avoided.
Policy 7: Provide substitute or supplemental water resources to areas already impacted by groundwater quality degradation by supporting facilities construction for surface water diversions.	Consistent	See <i>Water Resources</i> , Goal 1, above.
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.	Consistent	See <i>Water Resources</i> , Goal 2, above.
Air Quality		
Goal 1: Promote air quality that is compatible with health, wellbeing, and enjoyment of life by controlling	Consistent with the implementation of Mitigation Measures MM 4.3-1 through MM 4.3-10.	Impacts to air quality are analyzed in Section 4.3, <i>Air Quality</i> , in this Draft EIR. The proposed project would in line with San Joaquin Valley Air Pollution Control

Goals and Policies	Consistency Determination	Project Consistency
point sources and minimizing vehicular trips to reduce air pollutants.		<p>District (SJVAPCD) regulations, would not exceed screening thresholds for criteria pollutants. Additionally, the proposed project would execute a Developer Mitigation Agreement with the SJVAPCD to further reduce criteria pollutants.</p> <p>Impacts to vehicular emissions are analyzed in Section 17, Transportation, in this Draft EIR. See Policy 39, <i>Circulation Element</i>, above.</p>
Goal 2: Continue working toward attainment of federal, State, and local standards as enforced by the San Joaquin Valley Air Pollution Control District.	Consistent.	See <i>Air Quality</i> , Goal 1, above.
Goal 3: Reduce the amount of vehicular emissions in the planning area.	Consistent with implementation of Mitigation Measure MM 4.17-2 .	See Policy 39, <i>Circulation Element</i> , above.
Policy 1: Comply with and promote San Joaquin Valley Air Pollution Control District (SJVAPCD) 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.	Consistent.	Impacts to air quality are evaluated in Section 4.3, Air Quality , in this Draft EIR. Consistent with this measure, impacts to agricultural resources are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.
Policy 2: Encourage land uses and land use practices which do not contribute significantly to air quality degradation.	Consistent.	Impacts to air quality are evaluated in Section 4.3, Air Quality , in this Draft EIR. Consistent with this measure, impacts to agricultural resources are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.
Policy 3: Require dust abatement measures during significant grading and construction operations.	Consistent with the implementation of Mitigation Measure MM 4.3-2 .	Impacts to air quality are evaluated in Section 4.3, Air Quality , in this Draft EIR. As outlined in Mitigation Measure 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.

Goals and Policies	Consistency Determination	Project Consistency
<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. Buffers include increasing vegetation to increase emission dispersion and reduce impacts of gaseous or particulate matter on sensitive uses. 	<p>Consistent</p>	<p>Impacts to air quality are evaluated in Section 4.3, <i>Air Quality</i>, in this Draft EIR. Consistent with this measure, impacts to agricultural resources are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.</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</p>	<p>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 6: Participate in alternative fuel programs.</p>	<p>Consistent.</p>	<p>Impacts to air quality are evaluated in Section 4.3, <i>Air Quality</i>, in this Draft EIR. Motor vehicles used during construction and operation of the proposed project may use gasoline, diesel, or alternative fuels.</p>
<p>Policy 7: Participate in regional air quality studies and comprehensive programs for air pollution reduction.</p>	<p>Consistent.</p>	<p>Impacts to air quality and pollution are discussed in Section 4.3, <i>Air Quality</i>, in this Draft EIR. Participation in regional air quality studies and comprehensive programs for air pollution reduction is within the jurisdiction and responsibility of the County and the SJVAPCD. The proposed project is subject to any goals, policies, and programs of the County and SJVAPCD.</p>
<p>Policy 8: Promote and assist in the development and implementation of the San Joaquin Valley wide Air Quality Study.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.3-1 through Mitigation Measure MM 4.3-10.</p>	<p>See <i>Air Quality</i>, Goal 1, above.</p>
<p>Policy 10: Implement the Transportation System Management Program (July 1984) for Metropolitan Bakersfield to improve traffic flow, reduce vehicle trips and increase street capacity.</p>	<p>Consistent.</p>	<p>Impacts to transportation are analyzed in Section 4.17, <i>Transportation</i>, in this Draft EIR. The proposed project would be compliant with all federal, State, and local transportation plans and would not cause significant increases to traffic flow and circulation.</p>

Goals and Policies	Consistency Determination	Project Consistency
Policy 11: Improve the capacity of the existing road system through improved signalization, more right-turn lanes and traffic control systems.	Consistent with implementation of Mitigation Measures MM 4.17-1 through Mitigation Measure MM 4.17-3 .	See <i>Circulation Element</i> , Goal 1, above.
Policy 12: Encourage the use of mass transit, carpooling and other transportation options to reduce vehicle miles traveled.	Consistent with implementation of Mitigation Measure MM 4.17-2 .	See Policy 39, <i>Circulation Element</i> , above.
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.	Consistent with implementation of Mitigation Measure MM 4.17-2 .	See Policy 39, <i>Circulation Element</i> , above.
Policy 14: Establish park and ride facilities to encourage carpooling and the use of mass transit.	Consistent with implementation of Mitigation Measure MM 4.17-2 .	See Policy 39, <i>Circulation Element</i> , above.
Policy 15: Promote the use of bicycles by providing attractive bicycle paths and requiring provision of storage facilities in commercial and industrial projects.	Consistent with implementation of Mitigation Measure MM 4.17-2 .	See Policy 39, <i>Circulation Element</i> , above.
Policy 16: Cooperate with Golden Empire Transit and Kern Regional Transit to provide a comprehensive mass transit system for Bakersfield; require large-scale new development to provide related improvements, such as bus stop shelters and turnouts.	Consistent with implementation of Mitigation Measure MM 4.17-2 .	The proposed project would provide transit fares in compliance with Mitigation Measure MM 4.17-2 .
Policy 17: Continue to participate with the vehicle smog-check and maintenance programs.	Consistent with implementation of Mitigation Measures MM 4.17-1 through MM 4.17-3 .	See <i>Circulation Element</i> , Goal 1, above.
Policy 18: Encourage walking for short distance trips through the creation of pedestrian friendly sidewalks and street crossings.	Consistent	See <i>Circulation Element</i> , Policy 17, above.
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).	Consistent.	The proposed project would provide a source of new employment opportunities to existing residents, and would be located 400 feet northeast of the nearest existing residence.
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 with implementation of Mitigation Measure MM 4.17-2 .	See Policy 39, <i>Circulation Element</i> , above.

Goals and Policies	Consistency Determination	Project Consistency
Policy 23: Encourage the provision of shower and locker facilities by employers, for employees who bicycle or jog to work.	Consistent with implementation of Mitigation Measure MM 4.17-2.	See Policy 39, <i>Circulation Element</i> , above.
Policy 24: Encourage employers to implement programs for staggered work hours, compressed work weeks, or other measures that relieve vehicle congestion during commute periods or reduce total work trips.	Consistent.	See <i>Land Use Element</i> , Goal 1, above.
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.	Consistent.	See Policy 17, <i>Circulation Element</i> , above.
Policy 26: Consider restriction or elimination of on-street parking for the purpose of providing increased to or intersection capacity during peak hours.	Consistent.	Impacts to transportation are analyzed in Section 17, <i>Transportation</i> , in this Draft EIR. The proposed project would include 1,000 automobile parking stalls, 702 truck trailer stalls, 250 electric vehicle stalls, 34 accessible stalls, and 16 motorcycle stalls for on-site parking.
Policy 29: Encourage the use of alternative fuel and low or zero-carbon emission vehicles.	Consistent.	See Policy 17, <i>Circulation Element</i> , above. The project site would contain 200 vehicle charging stations.

CHAPTER VII: NOISE ELEMENT

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 [of the General Plan]. 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.	Consistent with the implementation of Mitigation Measures MM 4.13-1 through MM 4.-13-3.	As described in Section 4.13, <i>Noise</i> , noise levels in the vicinity of the closest sensitive receptor would not exceed 65dB during any worst-case construction or operational activities. In order to further reduce impacts to excess noise, the proposed project would implement Mitigation Measures 4.13-1 through 4.13-3, 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.
Policy 3: Review discretionary industrial, commercial or other noise-generating land use projects for compatibility with nearby noise-sensitive land uses.	Consistent with the implementation of Mitigation Measure MM 4.13-1 through MM 4.-13-3.	The proposed project site is currently used for agricultural production, and the nearest noise-sensitive receptor is located 400 feet southwest of the project site boundary.

Goals and Policies	Consistency Determination	Project Consistency
<p>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 [of the General Plan] in areas containing residential or other noise-sensitive land uses.</p>		<p>The proposed project would not increase noise levels above the threshold of 65 dB as set by the Metropolitan Bakersfield General Plan, and would not increase temporary or permanent increase in ambient noise levels in the project vicinity in excess of standards established in the local general plan or noise ordinance. In order to further reduce impacts to excess noise, the proposed project would implement Mitigation Measures 4.13-1 through MM 4.13-3, 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 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].</p> <p>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:</p> <ul style="list-style-type: none"> a) Be the responsibility of the applicant. b) Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics. c) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions. 	<p>Consistent with the implementation of Mitigation Measure MM 4.13-1 through MM 4.-13-3.</p>	<p>Impacts to noise are analyzed in Section 4.13, <i>Noise</i>, in this Draft EIR. The proposed project would not result in noise levels in excess of set General Plan thresholds during construction or operation. As such, all project and cumulative impacts would be less than significant. The proposed project would be compliant with all applicable federal, State, and local policies and regulations. In order to further reduce impacts to excess noise, the proposed project would implement Mitigation Measures 4.13-1 through MM 4.13-3, 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>

Goals and Policies	Consistency Determination	Project Consistency
<p>d) 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.</p> <p>e) Include recommendations for appropriate mitigation to achieve compliance with the adopted policies and standards of the Noise Element.</p> <p>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.</p>		
<p>Implementation 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.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.13-1 through MM 4.-13-3.</p>	<p>See <i>Noise Element</i>, Measure 4, above.</p>
<p>Implementation 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.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.13-1 through MM 4.-13-3.</p>	<p>See <i>Noise Element</i>, Measure 4, above.</p>
<p>Standards for Cumulative Noise Impacts</p> <p>A significant increase in ambient noise level affective existing noise-sensitive land uses (receptors), requiring the adoption of practical and feasible mitigation</p>		

Goals and Policies	Consistency Determination	Project Consistency
<p>measures, is deemed to occur where a project will cause:</p> <ul style="list-style-type: none"> • An increase in ambient noise level of 1dB or more over 65dB CNEL, where the existing ambient level is 65dB CNEL or less; • 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. 		

CHAPTER VIII: SAFETY ELEMENT

Seismic Safety		
<p>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.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.7-1 through MM 4.7-5.</p>	<p>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 Mitigation Measures MM 4.7-1 through MM 4.7-5, 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.</p>
<p>Policy 9: Adopt and maintain high standards for seismic performance of buildings, through prompt adoption and</p>	<p>Consistent.</p>	<p>As described in Section 4.7, <i>Geology and Soils</i>, the proposed project would be constructed in compliance</p>

Goals and Policies	Consistency Determination	Project Consistency
<p>careful enforcement of the most current seismic standards of the Uniform Building Code.</p>		<p>with the Kern County Building Code and the 2022 California Building Standards Code.</p>
<p>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.</p>	<p>Consistent.</p>	<p>As described in Section 4.7, <i>Geology and Soils</i>, the proposed project is not located within an Alquist-Priolo Earthquake Fault Zone.</p>
<p>Policy 13: Determine 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.</p>	<p>Consistent with the implementation of Mitigation Measure MM 4.7-4.</p>	<p>As described in Section 4.7, <i>Geology and Soils</i>, the proposed project would not exacerbate or contribute to the potential for liquefaction. Implementation of Mitigation Measure MM 4.7-4 would ensure that all building locations would be stabilized against the liquefaction through methods approved the County Building official.</p>
<p>Public Safety</p>		
<p>Goal 1: 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.</p>	<p>Consistent</p>	<p>Impacts regarding police and fire services are evaluated in Section 4.14, <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.</p>
<p>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.</p>	<p>Consistent with the implementation of Mitigation Measure MM 4.9-1 through MM 4.9-3.</p>	<p>As discussed in Section 4.9, <i>Hazards and Hazardous Materials</i>, the proposed project would not have significant impacts related to hazardous materials, fire, or emergency medical services. Complying with Goal 4, the implementation of Mitigation Measures MM 4.9-1 and MM 4.9-2 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. Mitigation Measure MM 4.9-3 would require the preparation and dissemination of a Hazardous Materials Business Plan (HMBP) for the proposed project.</p>
<p>Policy 2: Require discretionary projects to assess impacts on police and fire services and facilities.</p>	<p>Consistent</p>	<p>Impacts regarding police and fire services are evaluated in Section 4.14, <i>Public Services</i>, of this Draft EIR. Consistent with this measure, impacts to emergency</p>

Goals and Policies	Consistency Determination	Project Consistency
		public services are evaluated in accordance with CEQA. This Draft EIR serves to comply with this policy.
Policy 7: Enforce ordinances regulating the use/manufacture/sale/transportation/disposal of hazardous substances, and require compliance with State and federal laws regulating such substances.	Consistent with the implementation of Mitigation Measure MM 4.9-1 through MM 4.9-3 .	See <i>Public Safety</i> , Goal 4, above.
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 11: Protect and maintain watershed integrity within Kern County.	Consistent.	
Policy 12: Where recommended by appropriate local, State, or federal agencies for discretionary projects, soils shall be tested for concentrations or 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	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 Concern (RECs) on-site. Despite the project site’s historical use for agriculture, the project-specific Phase I ESA concluded that surface soils have not been adversely affected or contaminated.
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 effects to human health as required by the Department of Environmental Services.	Consistent	See <i>Public Safety</i> , Policy 12, above.

CHAPTER X: PUBLIC SERVICES AND FACILITIES ELEMENT

General Utility Services		
Goal 1: Provide uniform and adequate public lighting for all developed and developing portions of the Planning area.	Consistent with the implementation of Mitigation Measures MM 4.1-4 through MM 4.1-5 .	As discussed in Section 4.1, Aesthetics , 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

Goals and Policies	Consistency Determination	Project Consistency
		ensured by the inclusion of Mitigation Measures MM 4.1-4 and MM 4.1-5 .
<p>Goal 2: Develop uniform Planning area street light location and design standards.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.1-4 through MM 4.1-5.</p>	<p>See <i>General Utility Services</i>, Goal 1, above.</p>
<p>Water Distribution</p>		
<p>Policy 3: Require that all new development proposals have an adequate water supply available.</p>	<p>Consistent</p>	<p>Impacts to public utilities are evaluated in Section 4.19, Utilities and System Services, in this Draft EIR. As analyzed in Impact 4.19-1, the proposed project would be served by CalWater, who would be estimated to have sufficient water supply available to meet future demands within the Bakersfield District service area and the proposed project.</p>
<p>Storm Drainage</p>		
<p>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.</p>	<p>Consistent.</p>	<p>Impacts to storm drainage are evaluated in Section 4.19, Utilities and System Services, in this Draft EIR. The proposed project would install a storm drainage collection system and three retention basins throughout the project site.</p>
<p>Street Lighting</p>		
<p>Goal 1 Provide uniform and adequate public lighting for all developed and developing portions of the Planning area.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.1-4 through MM 4.1-5.</p>	<p>See <i>General Utility Services</i>, Goal 1, above.</p>
<p>Policy 4: Require developers to install street lighting in all new developments in accord with adopted City standards and county policies.</p>	<p>Consistent with the implementation of Mitigation Measures MM 4.1-4 through MM 4.1-5.</p>	<p>See <i>General Utility Services</i>, Goal 1, above.</p>
<p>Solid Waste</p>		
<p>Policy 1: Comply with, and update as required, the adopted county solid waste management plan.</p>	<p>Consistent with the implementation of Mitigation Measure MM 4.19-9.</p>	<p>Impacts to solid waste are evaluated in Section 4.19, Utilities and System Services, in this Draft EIR. The proposed project would be subject to all federal, State,</p>

Goals and Policies	Consistency Determination	Project Consistency
<p>and local policies and regulations regarding waste management and would be adequately served by the Bena Landfill. Additionally, with the implementation of Mitigation Measure MM 4.19-9, the proposed project would recycle debris and waste under the oversight of a designated recycling coordinator.</p>		
<p>CHAPTER XI: PARKS ELEMENT</p>		
<p>Goal 2: Supply neighborhood parks at a minimum of 2.5 acres per 1,000 persons throughout the plan area.</p>	<p>Consistent</p>	<p>As discussed in Section 4.14, Public Services, the proposed project would be staffed largely by employees from the area and would not significantly increase the population of the County, and therefore would not affect the City’s ability to maintain acceptable service ratios of parks, libraries, or schools. Additionally, as described in Section 4.17, Recreation, the proposed project is subject to the payment of the dedication of parkland or payment of an equivalent in lieu fee as part of the County’s implementation of the Quimby Act.</p>
<p>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.</p>	<p>Consistent</p>	<p>See <i>Parks Element</i>, Goal 2, above.</p>
<p>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.</p>	<p>Consistent</p>	<p>See <i>Parks Element</i>, Goal 2, above.</p>
<p>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.</p>	<p>Consistent</p>	<p>See <i>Parks Element</i>, Goal 2, above.</p>
<p>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.</p>	<p>Consistent</p>	<p>See <i>Parks Element</i>, Goal 2, above.</p>

Goals and Policies	Consistency Determination	Project Consistency
<p>Policy 33: Monitor the parkland dedication ordinance with in lieu fee provisions.</p>	<p>Consistent.</p>	<p>As described in Section 4.17, Recreation, the proposed project is subject to the payment of the dedication of parkland or payment of an equivalent in lieu fee as part of the County’s implementation of the Quimby Act.</p>
<p>Implementation Measure 9: Modify the subdivision and building ordinances to:</p> <ol style="list-style-type: none"> a) Require that local parks be developed at a minimum rate of 2.5 acres per 1,000 population. b) Allow developers (within the City) neighborhood park credit as follows: <ol style="list-style-type: none"> 1) Up to seven tenths (0.7) of one acre per 1,000 population credit for on-site recreation or park-like development in PUDs, open spaces, or publicly owned lands; 2) Up to one and one-half (1.5) acre per 1,000 population credit for on-site recreation or park-like development located within land encumbered with electrical transmission line easements and incorporated as a functional design component of the residential development. c) Require developers to show park locations on development plans. d) Establish as a target mini-parks and neighborhood parks within the City of Bakersfield’s jurisdiction be accessibly located within three-quarters of a mile of residents they are intended to serve. e) Require, where feasible, parks be developed with the following minimum acreage standards: <ul style="list-style-type: none"> • Mini-parks 2.5 usable acres • Neighborhood Parks 10.0 usable acres • Community Parks 20.0 usable acres 	<p>Consistent.</p>	<p>Impacts to parks and recreation are analyzed in Section 4.15, Public Services and Section 4.16, recreation. The proposed project is not anticipated to create a substantial increase in population and would most likely higher employees from the local workforce of the surrounding area. As such, the proposed project would not create the need to create more parkland to meet the City’s target parkland ratio, nor would it result in substantial deterioration of existing park facilities.</p>

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Section 4.12
Mineral Resources

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4.12.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting for mineral resources. It also describes the impacts on mineral resources that would result from implementation of the proposed project, and mitigation measures that would reduce these impacts, if applicable. Information used in the preparation of this section includes the California Department of Conservation California Geological Survey (CGS), California Department of Conservation Geologic Energy Management (CalGEM) [formerly the California Division of Oil, Gas, and Geothermal Resources (DOGGR)].

4.12.2 Environmental Setting

The nonrenewable characteristic of mineral deposits necessitates the careful and efficient development of mineral resources in order to prevent the unnecessary waste of these deposits due to careless exploitation and uncontrolled urbanization. The management of these mineral resources will protect not only future development of mineral deposit areas but will also limit the exploitation of mineral deposits so that adverse impacts caused by mineral extraction will be reduced or eliminated. This section discusses the existing conditions related to mineral resources within the project area, including the project site.

Regional Setting

Mineral and petroleum resources are basic to Kern County's economy; Kern County produces more oil than any other county in the United States. Mineral resources in Kern County includes numerous mining operations that extract a variety of materials, including sand and gravel, borax, gold, and limestone. Borax, cement, and construction aggregates represent 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 MRZ categories are defined as follows (DOC 2000):

- **MRZ-1:** Areas where adequate geologic information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- **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-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.

Petroleum Resources

As mentioned above, Kern County produces more oil than any other county in the United States. The valley floor area of Kern County and the surrounding lower elevations of the mountain ranges contain numerous deposits of oil and gas resources, a major economic resource for the County. The Metropolitan Bakersfield General Plan states that the primary mineral resources in the area include oil and gas, and there are 14 oil fields in the area. As stated in the Phase I Environmental Site Assessment (Phase I ESA) for the proposed project, records kept by CalGEM, indicate that a canceled well permit was listed on the project site as API 0403053329, and as a result, this well did not break ground on the project site. Additionally, the CalGEM Well Finder application indicates two cancelled oil and gas wells on the project site (American Petroleum Institute [API] 0403053329 and 0403053330), both originally applied for by Maranatha Petroleum, Inc. and under lease listed as Houge. The nearest active oil and gas well is approximately 4.88 miles north of the project site, near the corner of Stine Road and Woodmere Drive (CalGEM 2023). According to a review of the Department of Toxic Substances Control (DTSC) EnviroStor database, there are no hazardous release sites located within a mile of the project site (DTSC 2023). The California State Water Resources Control Board (State Water Board) GeoTracker database showed no listed release locations on the project site or in the surrounding vicinity (State Water Board 2023). Additionally, the project site is not located within a designated mineral and petroleum resource site according to the Metropolitan Bakersfield General Plan.

Sand and Gravel

As discussed in the Conservation/Mineral Resources Chapter of the Metropolitan Bakersfield General Plan, sand and gravel have been determined to be important resources for construction, development, and physical maintenance, 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 cost of sand and gravel, the long-term availability of local sources of this resource is an important factor in maintaining the economic attractiveness of a community to residents, business, and industry. According to the Metropolitan Bakersfield General Plan, sand and gravel resource areas are primarily concentrated along the floodplain and alluvial fan of the Kern River.

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 later, in 1881, in Death Valley (Rio Tinto 2019). 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 (Rio Tinto 2019). Annually over 22 million tons of unrefined borax is removed from this mine, which supplies about 30 percent of the world's supply of borates (Rio Tinto 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 mined continuously since 1921, just northeast of Tehachapi. 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

In terms of total dollar value and number of deposits, gold is the most important metallic mineral commodity 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 and 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 is 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 area of 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 site is located approximately 1.3 miles south of the City of Bakersfield in unincorporated Kern County. The Kern Island Canal is approximately 0.7 mile east of the project site, and the unincorporated community of Lamont is approximately 6 miles northeast of the project site. The project site is bound by Houghton Road to the north and Wible Road to the west and is situated approximately 1 mile west of State Route (SR) 99. The project site and the surrounding area is characterized by cultivated agricultural uses (row crops and orchards) as well as agricultural processing facilities. The project site is not designated as a mineral recovery area by the Metropolitan Bakersfield General Plan, but it is located within a SMARA study area by the Department of Conservation's State Mining and Geology Board (SMGB). As mentioned above, there are no active oil, gas, or geothermal wells located on the project site (CalGEM 2023).

The nearest active mine in proximity to the project site is listed as Klondike Group (ID: 10076737), located approximately 8.67 miles northeast of the project site, which actively mines gold. **Table 4.12-1: Mines Within the Project Vicinity**, lists the mines located within a 10-mile radius of the project site, their status, and the commodity being mined. Nearly all mines within a 10-mile radius of the project site are no longer active and are listed as past producers.

TABLE 4.12-1: MINES WITHIN THE PROJECT VICINITY

Mine Title	Development Status	Commodity	Distance from Project Site
County Pit (ID: 10139488)	Past Producer ¹	Sand and Gravel	1.55 miles north
Dougherty Pit (ID: 10236673)	Past Producer	Sand and Gravel	2.97 miles east
Chevron Pit (ID: 10236147)	Past Producer	Sand and Gravel	4.86 miles southwest
County Pit (ID: 1026384)	Past Producer	Sand and Gravel	7.12 miles southeast
Klondike Group (ID 10076737)	Producer ²	Gold	8.67 miles northeast
County Pit (ID 10159199)	Past Producer	Sand and Gravel	9.34 miles northeast
Kern Lake Deposits (ID 10285376)	Past Producer	Gypsum-Anhydrite	7.94 miles southwest
Standard Oil Company Pit	Past Producer	Sand and Gravel	9.3 miles southwest
Unnamed Gravel Pit (ID: 10163641)	Past Producer	Sand and Gravel	6.89 miles southeast

Notes:

¹ Indicates an inactive status.

² Refers to an active status.

Source: United States Geological Survey (USGS). Mineral Resource Data System 2023.

4.12.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

California Geologic Energy Management Division

The CalGEM is a State agency 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 plugged or abandoned oil and gas wells or requires the remediation of wells to current CalGEM standards (California Department of Conservation [DOC] 2023a, 2023b).

Surface Mining and Reclamation Act of 1975

SMARA requires the State Geologist to classify land into MRZs according to its known or inferred mineral potential. The primary products are mineral land classification maps and reports. Local agencies are required to use the classification information when developing land use plans and when making land use decisions (DOC 2023c). MRZs are defined in detail in the Regional Setting section, above.

Local

Metropolitan Bakersfield General Plan

There are no Metropolitan Bakersfield General Plan goals, policies, or implementation measures related to mineral resources that are applicable to the proposed project.

4.12.4 Impacts and Mitigation Measures

Methodology

The proposed project's potential impacts to mineral resources have been evaluated using a variety of sources, including a review of information from the California Department of Conservation CGS, United States Geological Survey (USGS), and the Metropolitan Bakersfield General Plan publications and maps. 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 CEQA Guidelines Appendix G, to determine whether a project could potentially have a significant adverse effect on mineral resources.

A project would have a significant adverse effect on mineral resources if it would:

- a. 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
- b. 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 proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the State.

The project site is not located on lands classified as MRZs by the CGS or the Department of Conservation's SMGB. The project site is not within the Metropolitan Bakersfield General Plan designation of R-MP (Resource–Mineral and Petroleum). The nearest inactive mine to the project site is a County Pit (ID: 10139488), located approximately 1.55 miles north of the project site. The mine is listed as a past producer and is no longer active. The nearest active mine is more than 8 miles from the project site. Given these characteristics, the proposed project would not interfere with nearby mineral extraction operations and would not result in the loss of land designated for mineral resources. As noted above, CalGEM includes a listing for canceled well permits on-site. However, there are no wells within the project site. Furthermore, the proposed project would not impede access to mineral resources or potential mineral operations in adjacent areas. The proposed project would not interfere with current oil and mineral extraction operations and would not result in the loss of land designated for mineral resources. Therefore, the proposed project would not result in the loss of availability of a known mineral resource and the potential impact to future mineral resources is less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Impact 4.12-2: The proposed project would not 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.

The project site is not located within an area designated as R-MP (Resource – Mineral and Petroleum) by the Metropolitan Bakersfield General Plan. As previously stated, includes a listing for a canceled well

permit on-site. However, there are currently no wells within the project site. Therefore, the proposed project would not result in the loss of availability of a locally important mineral resource recovery site and impacts related to the loss of mineral resources would be considered less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

As described in **Chapter 3, *Project Description***, and shown in **Table 3-5, *Cumulative Projects List***, there are 14 cumulative projects within a 6-mile radius of the project site. 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. There are no cumulative projects located within 0.25 mile of the project site. The closest cumulative project, located immediately adjacent to the project site consisting of the same Assessor's Parcel Number, and involves the construction of a new warehouse. 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.

Development of the proposed project would not interfere with this expansion nor prevent any other current or future mining project. The project site is not located within a mineral resource zone by the CGS or the Department of Conservation's SMGB. Additionally, the proposed project would not conflict with the continued operation of the existing mining and petroleum extraction sites in the project area. Therefore, the proposed project, combined with other related projects, would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. The proposed 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 and thus would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Cumulative impacts would be less than significant.

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Section 4.13 **Noise**

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4.13.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting for the proposed project and provides an analysis of potential impacts related to noise and groundborne vibration from project implementation. Additionally, mitigation measures to reduce potential noise and vibration impacts are identified, where necessary. The information and analysis in this section is largely based on the Noise Impact Analysis Report for the Westside Industrial Project (FirstCarbon Solutions [FCS] 2023d) provided in Appendix H of this Draft EIR.

Noise Fundamentals

An understanding of the physical characteristics of noise is useful for evaluating environmental noise impacts. 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 generally defined as loud, unpleasant, unexpected, or undesired sound that is typically associated with human activity and interferes with or disrupts normal activities. The effects of noise on people can be grouped into four general categories:

- Subjective effects (dissatisfaction, annoyance);
- Interference effects (communication and sleep interference);
- Physiological effects (startle response); and
- Physical effects (hearing loss).

Although exposure to high noise levels has been demonstrated to cause physical and physiological effects, the principal human responses to typical environmental noise exposure are related to subjective effects and interference with activities. The subjective responses of individuals to similar 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 human communication activities, such as normal conversations, watching television, and telephone conversations, and interference with sleep. Sleep interference effects can include both awakening from sleep and arousal to a lesser state of sleep.

Sound is a physical phenomenon consisting of minute vibrations that travel through a medium, such as air, and are sensed by the human 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 [Hz]), while amplitude describes the sound's pressure (loudness). Because the range of sound pressures that occurs in the environment is extremely large, it is convenient to express these pressures on a logarithmic scale that compresses the wide range of pressures into a more useful range of numbers. The standard unit

of sound measurement is the decibel (dB). Hz is a measure of how many times each second the crest of a sound pressure wave passes a fixed point. For example, when a drummer beats a drum, the skin of the drum vibrates a given number of times per second. If the drum vibrates 100 times per second, it generates a sound pressure wave that is oscillating at 100 Hz, and this pressure oscillation is perceived by the ear/brain as a tonal pitch of 100 Hz. Sound frequencies between 20 and 20,000 Hz are within the range of sensitivity of the healthy human ear.

Sound levels are expressed by reference to a specified national/international standard. The sound pressure level is used to describe sound pressure (loudness) and is specified at a given distance or specific receptor location. In expressing sound pressure level on a logarithmic scale, sound pressure (dB) is referenced to a value of 20 micropascals (μPa). Sound pressure level depends not only on the power of the source but also on the distance from the source to the receiver and the acoustical characteristics of the sound propagation path (absorption, reflection, etc.).

Outdoor sound levels decrease logarithmically as the distance from the source increases. This decrease is due to wave divergence, atmospheric absorption, and ground attenuation. Sound radiating from a source in a homogeneous and undisturbed manner travels in spherical waves. As the sound waves travel away from the source, the sound energy is dispersed over a greater area, decreasing the sound pressure of the wave. Spherical spreading of the sound wave from a point source reduces the noise level at a rate of 6 dB per doubling of distance.

Atmospheric absorption also influences the sound levels received by an observer. The greater the distance traveled, the greater the influence of the atmosphere and the resultant fluctuations. Atmospheric absorption becomes important at distances greater than 1,000 feet. The degree of absorption varies depending on the frequency of the sound as well as the humidity and temperature of the air. For example, atmospheric absorption is lowest (i.e., sound carries farther) at high humidity and high temperatures, and lower frequencies are less readily absorbed (i.e., sound carries farther) than higher frequencies. Over long distances, lower frequencies become dominant as the higher frequencies are more rapidly attenuated. Turbulence, gradients of wind, and other atmospheric phenomena also play a significant role in determining the degree of attenuation. For example, certain conditions, such as temperature inversions, can channel or focus the sound waves, resulting in higher noise levels than would result from simple spherical spreading.

Sound from a tuning fork contains a single frequency (a pure tone), but most sounds in the environment do not consist of a single frequency. Instead, they are a broad band of many frequencies differing in sound level. Because of the broad range of audible frequencies, methods have been developed to quantify these values into a single number representative of human hearing. The most common method used to quantify environmental sounds consists of evaluating all frequencies of a sound according to a weighting system that is reflective of human hearing characteristics. Human hearing is less sensitive at low frequencies and extremely high frequencies than at the mid-range frequencies. This process is termed “A weighting,” and the resulting dB level is termed the “A-weighted” decibel (dBA).

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. Unless specifically noted, the use of A-weighting is always assumed with respect to environmental sound and community noise, even if the notation does not include the “A.”

In terms of human perception, a sound level of 0 dBA is the threshold of human hearing and is barely audible by a healthy ear under extremely quiet listening conditions. This threshold is the reference level

against which the amplitude of other sounds is compared. Normal speech has a sound level of 60 dBA. Sound levels above about 120 dBA begin to be felt inside the human ear as discomfort, progressing to pain at still higher levels. Humans are much better at discerning relative sound levels than absolute sound levels. The minimum change in the sound level of individual events that an average human ear can detect is about 1 to 3 dBA. A 3 to 5 dBA change is readily perceived. An increase (or decrease) in sound level of about 10 dBA is usually perceived by the average person as a doubling (or halving) of the sound's loudness.

Because of the logarithmic nature of the decibel, sound levels cannot be added or subtracted directly. However, some simple rules are useful in dealing with sound levels. First, if a sound's acoustical energy is doubled, the sound level increases by 3 dBA, regardless of the initial sound level (e.g., 60 dBA + 60 dBA = 63 dBA; 80 dBA + 80 dBA = 83 dBA). However, an increase of 10 dBA is required to double the perceived loudness of a sound, and a doubling or halving of the acoustical energy (a 3 dBA difference) is at the lower limit of readily perceived change.

Although dBA may adequately indicate the level of environmental noise at any instant in time, community noise levels vary continuously. Most ambient environmental noise includes a mixture of noise from nearby and distant sources that creates an ebb and flow of sound, including some identifiable sources plus a relatively steady background noise in which no particular source is identifiable. A single descriptor, termed the equivalent sound level (L_{eq}), is used to describe sound that is constant or changing in level. L_{eq} is the energy-mean dBA during a measured time interval. It is the "equivalent" sound level produced by a given constant source equal to the acoustic energy contained in the fluctuating sound level measured during the interval. In addition to the energy-average level, it is often desirable to know the acoustic range of the noise source being measured. This is accomplished through the maximum instantaneous (L_{max}) and minimum instantaneous (L_{min}) noise level indicators that represent the root mean square (rms) maximum and minimum noise levels measured during the monitoring interval. The L_{min} value obtained for a particular monitoring location is often called the acoustic floor for that location.

To describe the time-varying character of environmental noise, the statistical or percentile noise descriptors L_{10} , L_{50} , and L_{90} may be used, which represent the noise levels equaled or exceeded during 10 percent, 50 percent, and 90 percent of the measured time interval, respectively. Sound levels associated with L_{10} typically describe transient or short-term events, L_{50} represents the median sound level during the measurement interval, and L_{90} levels are typically used to describe background noise conditions.

The Day-Night Average Sound Level (L_{dn} or DNL) represents the average sound level for a 24-hour day and is calculated by adding a 10 dBA penalty to sound levels during the night period (10:00 p.m. to 7:00 a.m.). The L_{dn} is the descriptor of choice and used by nearly all federal, state, and local agencies throughout the United States to define acceptable land use compatibility with respect to noise. Within California, the Community Noise Equivalent Level (CNEL) is sometimes used. CNEL is very similar to L_{dn} , except that an additional 5 dBA penalty is applied to the evening hours (7:00 to 10:00 p.m.). Because of the time of day penalties associated with the L_{dn} and CNEL descriptors, the dBA value of L_{dn} or CNEL for a continuously operating sound source during a 24-hour period will be numerically greater than the dBA value of the 24-hour L_{eq} . Thus, for a continuously operating noise source producing a constant noise level operating for periods of 24 hours or more, the L_{dn} will be 6 dBA higher than the 24-hour L_{eq} value. For convenience, a summary of common noise metrics is provided in **Table 4.13-1: Common Noise Metrics**.

TABLE 4.13-1: COMMON NOISE METRICS

Unit of Measure		Description
dB	decibel	Decibels, which are units for measuring the volume of sound, are measured on a logarithmic scale, representing points on a sharply rising curve. For example, 10 dB sounds are 10 times more intense than 1 dB sounds, and 20 dB sounds are 100 times more intense. A 10 dB increase in sound level is perceived by the human ear as a doubling of the loudness of the sound.
dBA	A-weighted decibel	A sound pressure level that has been weighted to quantitatively reduce the effect of high- and low-frequency noise. It was designed to approximate the response of the human ear to sound.
CNEL	Community Noise Equivalent Level	A metric representing the 24-hour average sound level that includes a 5 dBA penalty during relaxation hours (7:00 p.m. to 10:00 p.m.) and a 10 dBA penalty for sleeping hours (10:00 p.m. to 7:00 a.m.).
L_{dn}	day/night average sound level	The 24-hour average sound level, expressed in a single decibel rating, for the period from midnight to midnight obtained after the addition of a 10 dBA penalty to sound levels for the periods between 10:00 p.m. and 7:00 a.m.
L_{eq}	equivalent sound level	The average acoustic energy content of noise for a stated period of time. The L_{eq} of a time-varying signal and that of a steady signal are the same if they deliver the same acoustic energy over a given time. The L_{eq} may also be referred to as the average sound level. L_{eq} equates to $L_{eq(1)}$ for L_{eq} averaged over one hour; e.g., $L_{eq(8)}$ equates averaged over 8 hours.
L_{max}	maximum noise/sound level	L_{max} represents the maximum instantaneous noise level experienced during a given period of time. It reflects peak operating conditions and addresses the annoying aspects of intermittent noise.
L_{min}	minimum noise/sound level	L_{min} represents the minimum instantaneous noise level experienced during a given period of time. It reflects baseline operating conditions and is commonly referenced as the noise floor.
$L_1, L_{10}, L_{50}, L_{90}$	percentile noise exceedance levels	The A-weighted noise levels that are equaled or exceeded by a fluctuating sound level 1 percent, 10 percent, 50 percent, and 90 percent of a stated time period.

Vibration Fundamentals

As described in the Federal Transit Administration's (FTA) Transit Noise and Vibration Impact Assessment Manual (FTA 2018), groundborne vibration can be a serious concern for nearby neighbors of a transit system route or maintenance facility, causing buildings to shake and rumbling sounds to be heard. In contrast to airborne noise, groundborne vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of groundborne vibration are trains, buses on rough roads, and construction activities such as blasting, pile driving, and operation of heavy earthmoving equipment.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. The PPV is most frequently used to describe vibration impacts to buildings. The rms amplitude is most frequently used to describe the effect of vibration on the human body. The rms amplitude is defined as the average of the squared amplitude of the signal. Decibel notation (VdB) is commonly used to measure rms. The relationship of PPV to rms velocity is expressed in terms of the "crest factor," defined as the ratio of the PPV amplitude to the rms amplitude.

PPV is typically a factor of 1.7 to 6 times greater than rms vibration velocity. The decibel notation acts to compress the range of numbers required to describe vibration.

Typically, groundborne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receptors for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration sensitive equipment.

The effects of groundborne vibration include movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. In extreme cases, the vibration can cause damage to buildings. Building damage is not a factor for most projects, with the occasional exception of blasting and pile driving during construction. Annoyance from vibration often occurs when the vibration levels exceed the threshold of perception by only a small margin. A vibration level that causes annoyance will be well below the damage threshold for normal buildings. The FTA measure of the threshold of architectural damage for conventional sensitive structures is 0.2 inches per second (in/sec) PPV, while the standard for even the most sensitive and fragile structures is 0.12 in/sec PPV.

In residential areas, the background vibration velocity level is usually around 50 VdB (approximately 0.0013 in/sec PPV). This level is well below the vibration velocity level threshold of perception for humans, which is approximately 65 VdB. A vibration velocity level of 75 VdB is considered to be the approximate dividing line between barely perceptible and distinctly perceptible levels for many people.

4.13.2 Environmental Setting

Existing Noise Environment

The project site is located within unincorporated Kern County (County). Surrounding the project site are agricultural land to the south and east, and an agricultural processing facility and Houghton Road to the north. Wible Road and the same agricultural processing facility are located to the west. The dominant noise source in the project vicinity is noise from traffic on local roadways adjacent to the project site.

Existing traffic noise levels along selected roadway segments in the project vicinity were modeled using the Federal Highway Administration (FHWA) Traffic Noise Prediction Model (FHWA-RD-77-108). The daily traffic volumes were obtained from the traffic study prepared for the proposed project by Kimley-Horn and Associates, Inc. (KHA 2024b). The traffic volumes described here correspond to the existing without project conditions traffic scenario as described in the transportation analysis. The model inputs and outputs—including the 60 dBA, 65 dBA, and 70 dBA CNEL noise contour distances—are provided in Appendix H of this document. A summary of the modeling results is shown in **Table 4.13-2: Existing Traffic Noise Levels**.

TABLE 4.13-2: EXISTING TRAFFIC NOISE LEVELS

Roadway Segment	Approximate ADT	Centerline to 70 CNEL (feet)	Centerline to 65 CNEL (feet)	Centerline to 60 CNEL (feet)	CNEL (dBA) 50 feet from Centerline of Outermost Lane
Houghton Road–Highway 99 ramps to H Street	2,900	< 50	< 50	84	62.7
Houghton Road–H Street to Wible Road	2,200	< 50	< 50	70	61.5
Wible Road–Houghton Road to Shafter Road	860	< 50	< 50	< 50	57.4

Notes:

ADT = Average Daily Traffic

CNEL = Community Noise Equivalent Level

dBA = A-weighted decibel

¹ The ADT values are calculated based on the PM peak-hour traffic volumes multiplied by a factor of 10.

² Modeling results do not take into account mitigating features such as topography, vegetative screening, fencing, building design, or structure screening. Rather, they assume a worst-case scenario of having a direct line of site on flat terrain.

Source: FirstCarbon Solutions (FCS). 2023. Noise Impact Analysis Report Westside Industrial Project.

Noise-Sensitive Receptors

Land uses deemed sensitive by the State of California include schools, hospitals, rest homes, and long-term care and mental care facilities, which are considered to be more sensitive to ambient noise levels than others. Many jurisdictions also consider residential uses particularly noise-sensitive because families and individuals expect to use time in the home for rest and relaxation and noise can interfere with those activities. Some jurisdictions may also identify other noise-sensitive uses, such as churches, libraries, and parks. The Noise Element of the County General Plan identifies residences, schools, hospitals, parks, churches, and other similar land uses to be noise-sensitive. Furthermore, sensitive noise receptors may also include threatened or endangered biological species, although many jurisdictions, including Kern County, have not adopted noise standards for wildlife areas. Land uses that are generally not considered to be noise-sensitive receptors include office, retail, and commercial developments, with the exception of commercial lodging facilities.

The nearest residential receptor is located approximately 400 feet southwest of the project site boundary. The next closest residential receptors are a neighborhood along Billie Way, located approximately 3,685 feet east of the project site. The closest school land use is the General Shafter School, located approximately 4,120 feet southeast of the project site.

Land uses sensitive to vibration include concert halls, hospitals, libraries, vibration sensitive research facilities, residential areas, schools, and offices. The nearest off-site structure to the project construction footprint is the agricultural shed for Martin Feed Inc., located north of the project site on Houghton Road.

4.13.3 Regulatory Setting

Federal

Noise Control Act of 1972 (42 USC 4910)

The Noise Control Act of 1972 (42 United States Code [USC] 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.

United States Environmental Protection Agency, Environmental Noise Levels

The United States 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 an 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 [CFR] 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} .

United States Department of Housing and Urban Development, Environmental Standards

The United States Department of Housing and Urban Development (HUD) regulations (24 CFR 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
- > 65 L_{dn} and < 75 L_{dn} —Normally unacceptable, appropriate sound attenuation measures must be provided
- > 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 (OSHA), 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

The State requires all municipalities to prepare and adopt a comprehensive long-range general plan, which must contain a noise element (California Government Code Section 65302(f) and Section 46050.1 of the Health Safety Code). The requirements of the noise element include describing the noise environment quantitatively using a cumulative noise metric such as CNEL or L_{dn} , establishing noise/land use compatibility criteria, and establishing programs for achieving and/or maintaining land use compatibility. Noise elements should address all major noise sources in the community, including mobile and stationary noise sources. In California, most cities and counties have also adopted noise ordinances which serve as enforcement mechanisms for controlling noise.

The California Department of Health Services has studied the correlation of noise levels and their effects on various land uses and established guidelines for evaluating the compatibility of various land uses for the noise elements of local general plans as a function of community noise exposure. The guidelines are the basis for most noise element land use compatibility guidelines in California.

The State also establishes noise limits for vehicles licensed to operate on public roads (California Vehicle Code, Section 27200, *et seq.*). For heavy trucks, the State pass-by standard is consistent with the federal

limit of 80 dBA at 15 meters. The State pass-by standard for light trucks and passenger cars (less than 4.5 tons, gross vehicle rating) is also 80 dBA at 15 meters from the centerline. These standards are implemented through controls on vehicle manufacturers and by legal sanction of vehicle operators by State and local law enforcement officials.

The State of California has established regulations that help prevent adverse impacts to occupants of buildings located near noise sources. Referred to as the “State Noise Insulation Standard,” it requires buildings to meet performance standards through design and/or building materials that would offset any noise source in the vicinity of the receptor. State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are provided in the 2022 California Building Standards Code (CBC) (California Code of Regulations [CCR] Title 24). For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor-ceiling assemblies must block or absorb sound. For limiting noise from exterior noise sources, the noise insulation standards set an interior standard of 45 dBA CNEL in any habitable room with all doors and windows closed. In addition, the standards require preparation of an acoustical analysis demonstrating the manner in which dwelling units have been designed to meet this interior standard, where such units are proposed in an area with exterior noise levels greater than 60 dBA CNEL.

The proposed project does not include any type of residential development. Therefore, these standards are not applicable to the proposed project. However, the State has established land use compatibility guidelines for determining acceptable noise levels for specified land uses, including industrial type land uses such as the proposed project, which Kern County has adopted as described below.

Local

The project site is located within unincorporated Kern County. Kern County and the City of Bakersfield separately adopted a coordinated general plan for the unincorporated metropolitan area, the Metropolitan Bakersfield General Plan, in 2002. Therefore, this analysis evaluates noise impacts compared to the policies and standards of the Metropolitan Bakersfield General Plan and those contained in the County’s Zoning Ordinance and Code of Ordinances. The applicable regulations are summarized below.

Metropolitan Bakersfield General Plan

Chapter VII—Noise Element

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 [of the General Plan]. 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.
- 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 [of the General Plan] in areas containing residential or other noise-sensitive land uses.

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:

- a) Be the responsibility of the applicant.
- b) Be prepared by a qualified acoustical consultant experienced in the fields of environmental noise assessment and architectural acoustics.
- c) Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.
- d) 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.
- e) 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.

Standards for Cumulative Noise Impacts

A significant increase in ambient noise level affective existing noise-sensitive land uses (receptors), requiring the adoption of practical and feasible mitigation measures, is deemed to occur where a project will cause:

- An increase in ambient noise level of 1 dB or more over 65dB CNEL, where the existing ambient level is 65dB CNEL or less;
- 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.

Kern County Zoning Ordinance

Section 19.80.030.S(1) of the Kern County Zoning Ordinance (Kern County 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 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 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. Commercial or industrial facilities that are located in the M-3 zone district are exempt from these noise-generation restrictions.

Kern County Code of Ordinances

The Kern County Code of Ordinances, Chapter 8.36 (Noise Control) includes acceptable hours of construction and limitations on construction-related noise impacts on adjacent sensitive receptors.

Section 8.36.020–Prohibited Sounds

It is unlawful for any person to do, or cause to be done, any of the following acts within the unincorporated areas of the County:

- H. To create noise from construction, between the hours of 9:00 p.m. and 6:00 a.m. on weekdays and 9:00 p.m. and 8:00 a.m. on weekends, which is audible to a person with average hearing faculties or capacity at a distance of 150 feet from the construction site, if the construction site is within 1,000 feet of an occupied residential dwelling except as provided below:
 1. The resource management director or a designated representative may for good cause exempt some construction work for a limited time.
 2. Emergency work is exempt from this section.

Groundborne Vibration

There are currently no federal, State, or local regulatory standards for groundborne vibration. However, the California Department of Transportation (Caltrans) has developed vibration criteria based on potential structural damage risks and human annoyance. Caltrans' threshold criteria pertaining to building damage and human annoyance for continuous and transient events are summarized in **Table 4.13-3: *Vibration Criteria for Structural Damage***, and **Table 4.13-4: *Vibration Criteria for Human Annoyance***, respectively.

TABLE 4.13-3: VIBRATION CRITERIA FOR STRUCTURAL DAMAGE

Structure and Condition	Vibration Level (in/sec PPV)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely fragile historic buildings, ruins, ancient monuments	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
Newer residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Notes:

in/sec PPV = inches per second peak particle velocity

Transient sources create a single isolated vibration event, such as blasting or ball drops. Traffic, train, and most construction vibrations are considered continuous.

Source: California Department of Transportation (Caltrans). 2013. Transportation and Construction Vibration Guidance Manual. September.

TABLE 4.13-4: VIBRATION CRITERIA FOR HUMAN ANNOYANCE

Human Response	Vibration Level (in/sec PPV)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely perceptible	0.04	0.01
Distinctly perceptible	0.25	0.04
Strongly perceptible	0.9	0.1
Annoying to people in buildings	—	0.2
Severe	2.0	0.4

Notes:

in/sec PPV = inches per second peak particle velocity

— = Not available

Transient sources create a single isolated vibration event, such as blasting or ball drops. Traffic, train, and most construction vibrations are considered continuous.

Source: California Department of Transportation (Caltrans). 2013. Transportation and Construction Vibration Guidance Manual. September.

As shown in **Table 4.13-3**, *Vibration Criteria for Structural Damage*, the structural damage threshold, at which there is a risk to normal structures from continuous or frequent vibration sources, is 0.3 in/sec PPV for older residential structures and 0.5 in/sec PPV for newer building construction. The 0.5 in/sec PPV threshold also represents the structural damage threshold applied to older structures for transient vibration sources.

As shown in **Table 4.13-4**, *Vibration Criteria for Human Annoyance*, with regard to human perception, vibration levels would begin to become distinctly perceptible at levels of 0.04 in/sec PPV for continuous or

frequent vibration sources and 0.25 in/sec PPV for transient vibration sources. Continuous vibration levels are considered annoying for people in buildings at levels of 0.2 in/sec PPV.

4.13.4 Impacts and Mitigation Measures

Methodology

Noise impacts associated with the proposed project were assessed in this section based primarily on the Noise Impact Analysis Report for the Westside Industrial Project (FCS 2023d), provided in Appendix H of this Draft EIR. Potential significant impacts associated with the proposed project were evaluated on a qualitative basis through a review of existing literature and available information and by using professional judgment in comparing the anticipated project effects on noise with existing conditions. The evaluation of project impacts is based on significance criteria established by California Environmental Quality Act (CEQA) Guidelines Appendix G, which the Lead Agency has determined to be appropriate criteria for this Draft EIR.

Short-Term Construction Noise

Predicted noise levels at nearby noise-sensitive land uses were calculated utilizing typical noise levels and usage rates associated with construction equipment, derived from the EPA Noise from Construction Equipment and Operations, U.S. Building Equipment, and Home Appliances (EPA 1971) document and representative data obtained from similar construction projects. Construction noise levels were predicted assuming an average noise-attenuation rate of 6 dB per doubling of distance from the source and an excess noise-attenuation rate of 1.5 dB per 1,000 feet.

Grading of the proposed project would start in July 2024. Grading of the project site would take approximately 20 days. Construction would be completed in one phase, beginning in September 2024 and concluding in September 2024. During construction, a temporary on-site batch plant would be assembled to manufacture and necessary to construct the facility and related improvements. This on-site batch plant will be de-assembled after construction is complete.

Transport of construction equipment would result in a relatively high single-event noise level generated at the source (a passing dump truck at 50 feet would generate up to 84 dBA L_{max}); however, the effect on longer-term (hourly or daily) ambient noise levels would be minimal.

Project construction would occur in specific phases, each of which has its own mix of equipment types and number and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated on the site and, therefore, also the noise levels surrounding the site as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. **Table 4.13-5: Noise Levels (L_{max})**, lists typical construction equipment noise levels recommended for noise impact assessments based on a reference distance of 50 feet from the equipment noise source.

TABLE 4.13-5: NOISE LEVELS (L_{MAX})

Type of Equipment	Impact Device? (Yes/No)	Acoustical Usage Factor	(dBA L_{max} at 50 feet)
Boom Truck ^a	No	50	85
Compactor (ground)	No	20	80
Concrete Mixer Truck	No	40	85
Concrete Pump Truck	No	20	82
Crane	No	16	85
Bulldozer	No	40	85
Drill Rig Truck	No	20	84
Excavator	No	40	85
Flatbed Truck	No	40	84
Forklift ^a	No	50	85
Grader	No	40	85
Grapple (on backhoe)	No	40	85
Loader/Backhoe	No	40	80
Mounted Impact Hammer (hoe ram)	Yes	20	90
Pneumatic Tools	No	50	85
Roller	No	20	85
Scraper	No	40	85
Trenching Machine ^a	No	50	85
Water Truck ^a	No	50	85

Notes:

dBA = A-weighted decibel

^a Used FHWA type "All Other Equipment > 5 HP."

Source: Federal Highway Administration (FHWA). Highway Construction Noise Handbook, August 2006.

The site preparation phase may include removal of vegetation and topsoil, compactions of subgrade, and shaping of ditches and swales. This phase tends to generate the highest noise levels during construction as the heavy equipment needed for earthmoving collectively generates the highest noise levels (other than impact equipment such as impact pile driving). This site preparation phase is expected to require a maximum daily use of dozers, water trucks, graders, flatbed trucks, skid steer, front-end loaders, roller compactors, pickups, backhoe, foundation delivery truck, module delivery truck, tracker delivery truck, concrete truck, and gravel trucks. As shown in **Table 4.13-5 Noise Levels (L_{max})**, the maximum noise levels for construction equipment used for construction of the proposed project ranges from approximately 80 to 85 dBA L_{max} at 50 feet.

Project construction would occur in accordance with all federal, State, and Kern County zoning codes and requirements. Site preparation would be consistent with Kern County's Best Management Practices (BMPs). Noise-generating construction activities would be limited to the allowable Kern County construction hours noted above. Stationary equipment and machines with the potential to generate a substantial increase in noise or vibration levels would be located away from noise-sensitive receptors to minimize potential noise levels.

Construction Traffic Noise

Construction would also generate off-site noise from vehicle traffic. Noise from daily construction worker commute trips and truck trips would affect surrounding traffic noise levels along roadways used to access the project site. A doubling of a noise source (e.g., vehicle traffic) is required to result in a perceptible (3 dBA or greater) increase in the resulting traffic noise level. Off-site construction noise levels are assessed based on the potential to result in a perceptible change in traffic-related noise levels.

Operational Stationary Source Noise

Predicted noise levels associated with on-site stationary noise sources and activities were calculated based on representative data obtained from existing literature and noise assessments prepared for similar projects. Operational noise levels were predicted assuming an average noise-attenuation rate of 6 dB per doubling of distance from the source and an excess noise-attenuation rate of 1.5 dB per 1,000 feet. Operational noise levels were calculated at the project site property lines and nearby land uses for comparison to the County noise standards.

The proposed project would generate noise from parking lot activities; new exterior mechanical equipment sources, such as rooftop ventilation systems on proposed industrial uses; and from truck loading and unloading activities. To provide a conservative analysis, the highest end of the range of reference noise levels for these stationary noise sources was used to calculate the reasonable worst-case hourly average noise levels from each noise source. These hourly averages were then assumed to occur for every hour for a 24-hour period to calculate the reasonable worst-case 24-hour average CNEL noise levels as measured at the nearest sensitive receptor land use. These individual source noise levels were then combined to calculate the reasonable worst-case combined stationary source 24-hour CNEL noise level as measured at the nearest sensitive receptor land use. These noise levels were then compared to the City's applicable noise performance threshold to determine whether these noise sources would result in a substantial increase in excess of this standard.

Operational Traffic Noise

The proposed facility would operate 24 hours a day, 365 days a year and typically consist of both day and night shifts. The number of employees occupying the facility as proposed would be similar to a traditional single-story facility utilizing more traditional racking or mezzanine structures. Therefore, with the nature of the proposed project, it would generate a total of 4,052 daily trips. This would include 547 AM peak-hour trips and 755 PM peak-hour trips.

Construction Groundborne Vibration

Groundborne vibration is almost exclusively a concern for buildings and its inhabitants and is rarely perceived as a problem outdoors, where the motion may be discernible but without the effects associated with the shaking of a building there is less adverse reaction. Groundborne vibration during construction activity is temporary and would cease to occur after project construction is completed. **Table 4.13-6: *Vibration Source Amplitudes for Construction Equipment*** shows the vibrational levels for typical construction equipment at a reference distance of 25 feet.

Groundborne vibration may be induced by traffic and construction activities, such as earthmoving. The project would require the use of a crane, excavator, grader, vibratory roller, scraper, tractor/loader/backhoe, trencher, and post driver, which generate vibration. Of these, the vibratory roller would generate the highest vibration level, 0.210 in/sec PPV at 25 feet, as shown in **Table 4.13-6, *Vibration Source Amplitudes for Construction Equipment***.

TABLE 4.13-6: VIBRATION SOURCE AMPLITUDES FOR CONSTRUCTION EQUIPMENT

Equipment	Reference PPV/L _v at 25 Feet	
	PPV (in/sec)	L _v (VdB) ^a
Pile Driver (Impact), Typical	0.644	104
Pile Driver (Sonic), Typical	0.170	93
Vibratory Roller	0.210	94
Hoe Ram	0.089	87
Large Bulldozer	0.089	87
Caisson Drilling	0.089	87
Loaded Trucks	0.076	86
Jackhammer	0.035	79
Small Bulldozer	0.003	58

Notes:

μin/sec = micro-inches per second

FTA = Federal Transit Administration

in/sec = inches per second

L_v = velocity in decibels

PPV = peak particle velocity

rms = root mean square

VdB = vibration velocity in decibels

^a rms vibration velocity in decibels (VdB) re 1 μin/sec.

^b Calculated based on a reference level of 0.65 in/sec PPV for a 36,000 foot-pounds (ft-lbs) pile driver and a maximum energy level of 2,200 ft-lbs for post drivers.

Source: Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.

Operational Vibration Impacts

Operation of the proposed project would involve operational traffic, including regular trips by delivery trucks (generating approximately 0.076 in/sec PPV). The warehouse would be exclusively truck-served, meaning it would be utilized by delivery trucks. These activities would occur on a regular daily basis. As such, the proposed project’s operational impacts are discussed qualitatively in this analysis.

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 noise.

A project would have a significant impact on noise if it would result in:

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

Noise Levels in Excess of Standards

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 which disturbs the peace and quiet of any neighborhood or which causes discomfort or annoyance to any reasonable person of normal sensitiveness sleeping or residing in the area.

For operational noise, the Metropolitan Bakersfield General Plan 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 Metropolitan Bakersfield General Plan.

Substantial Increases in Ambient Noise Levels

For short-term construction activities, an increase in noise of 3 dBA or more at the nearest noise-sensitive land uses during the more noise-sensitive evening and nighttime hours is used as a significance threshold.

Existing noise levels adjacent to the project site in the vicinity of the nearest sensitive receptor are documented, in Table 6, to be 57.4 dBA CNEL. Therefore, according to the Noise Element, the applicable

significance criteria for a substantial noise increase would be a 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.

The County does not define what would be a significant increase for mobile source operational noise levels. According to Caltrans Traffic Noise Analysis Protocol (Caltrans 2020), in California a substantial noise increase is considered to occur when the project's predicted design-year noise level exceeds the existing noise level by 12 dBA or more. Therefore, for purposes of this analysis, an increase of 12 dBA or greater above existing noise levels would be a substantial permanent increase in traffic noise levels.

Exposure to Groundborne Vibration

For the purposes of assessing potential groundborne vibration impacts associated with the project, Caltrans's vibration criteria for potential structural damage risks and human annoyance was used in this analysis. Accordingly, groundborne vibration levels would be considered significant if predicted short-term construction or long-term operational groundborne vibration levels attributable to the project would exceed the recommended criteria for structural damage or human annoyance (i.e., 0.25 and 0.1 in/sec PPV, respectively) at the nearest off-site existing structure (refer to **Table 4.13-3 *Vibration Criteria for Structural Damage*** and **Table 4.13-4 *Vibration Criteria for Human Annoyance***). These thresholds are considered to represent a conservative level at which construction-related activities would result in either structural damage or human annoyance.

Project Impacts

Impact 4.13-1: The project 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.

Construction

As discussed under **Section 4.13.2, *Environmental Setting***, existing noise in the project area was provided in the Noise Impact Analysis Report (FCS 2023d) provided in Appendix H of this Draft EIR.

The County Code of Ordinances, Chapter 8.36, Noise Control has established limits on permissible hours of construction from 6:00 a.m. to 9:00 p.m. on weekdays and from 8:00 a.m. and 9:00 p.m. on weekends. Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities.

Construction Traffic

Noise impacts from construction activities associated with the project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. One type of short-term noise impact that could occur during project construction would result from the increase in traffic flow on local streets associated with the transport of workers, equipment, and materials to and from the project site. The transport of workers and construction equipment and materials to the project site would incrementally increase noise levels on access

roads leading to the site. Because workers and construction equipment would use existing routes, noise from passing trucks would be similar to existing vehicle-generated noise on these local roadways. Typically, a doubling of the Average Daily Traffic (ADT) hourly volumes on a roadway segment is required in order to result in an increase of 3 dBA in traffic noise levels, which, as discussed above, is the lowest change that can be perceptible to the human ear in outdoor environments. Based on the air quality modeling analysis prepared for this proposed project, the phase of construction that would generate the highest daily trips would be the building construction phase. This phase would generate an anticipated total of 382 average daily trips. As shown in Table 4.13-2, average daily trips on roadway segments adjacent to the project site are 860 per day or greater. Therefore project-related construction trips would not be anticipated to double the daily traffic volumes along any roadway segment in the project vicinity. For this reason, short-term intermittent noise from construction trips would not be expected to result in a perceptible increase in hourly or daily average traffic noise levels in the project vicinity. Therefore, short-term construction-related noise impacts associated with the transportation of workers and equipment to the project site would be less than significant.

Construction Equipment Operational Noise

The second type of short-term noise impact is related to noise generated during construction on the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. 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. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. 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 construction of this project.

The site preparation phase, which includes excavation and grading of the site, tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery and compacting equipment, such as bulldozers, draglines, backhoes, front loaders, roller compactors, scrapers, and graders. 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.

Construction of the project is expected to require the use of scrapers, bulldozers, water trucks, haul trucks, and pickup trucks. The maximum noise level generated by each scraper is assumed to be 85 dBA L_{max} at 50 feet from this equipment. Each bulldozer would also generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by graders is approximately 85 dBA L_{max} at 50 feet. A characteristic of sound is that each doubling of sound sources with equal strength increases a sound level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, a reasonable worst-case combined noise level during this phase of construction would be 90 dBA L_{max} at a distance of 50 feet from the acoustic center of a construction area. This would result in a reasonable worst-case hourly average of 86 dBA L_{eq} . The acoustic center reference is used because construction equipment must operate at some distance from one another on a project site, and the combined noise level, as measured at a point equidistant from the sources (acoustic center), would be the worst-case maximum noise level. The effect on sensitive receptors is evaluated below.

The closest noise-sensitive receptor to the project site is the single-family residential dwelling located approximately 400 feet southwest of the project site, west of Wible Road. The next closest receptors are a neighborhood along Billie Way, located approximately 3,685 feet east of the project site, and General Shafter School, located approximately 4,120 feet southeast of the project site. Because of distance attenuation, project noise levels at these other sensitive land uses would attenuate by more than 19 dBA compared to the noise levels that would be experienced at the nearest sensitive receptor. Therefore, the following analysis focuses on potential noise impacts to the closest sensitive receptor land use.

The nearest sensitive receptor, the residence southwest of the project site, would be located approximately 400 feet from the acoustic center of construction activity where multiple pieces of heavy construction equipment would operate simultaneously during construction of the off-site roadway improvements along Wible Road. At this distance, relative worst-case maximum construction noise levels would attenuate to below 67 dBA L_{max} , and relative worst-case hourly average construction noise levels would attenuate to below 59 dBA L_{eq} . Assuming these activities occurred every hour during the County's permissible hours for construction activities, the resulting 24-hour noise measurement would be 57 dBA CNEL, as measured at this nearest sensitive receptor land use.

Noise levels in the vicinity of the closest sensitive receptor are documented, in Table 6, to be 57.4 dBA CNEL. Therefore, these reasonable worst-case construction noise levels would exceed existing ambient noise levels by less than 3 dBA. Such a change would not be considered a perceptible change. In addition, based on the EPA's Protective Noise Levels (EPA 1978), standard construction for residential structures built in Northern California, in accordance with California Building Code requirements, would provide a minimum of 25 dBA in exterior-to-interior noise reduction with windows closed. Therefore, these reasonable worst-case construction noise levels would attenuate to below 32 dBA CNEL as measured at the interior of the nearest residential receptor. These noise levels are well below the applicable interior noise performance standard of 45 dB CNEL. Nonetheless, implementation of **Mitigation Measures MM 4.13-1** through **MM 4.13-3** would require the project proponent establish an on-site Noise Disturbance Coordinator and implement other noise-reducing measures to manage short-term noise levels associated with project construction and ensure that construction noise levels are in compliance with applicable regulations. Any complaints filed with the Noise Disturbance Coordinator would be disclosed to the County of Kern. They would also require oversight through the inclusion of notations on all grading and building permits that require noise reduction methods to be carried out during construction. Therefore, project construction noise levels would not result in a substantial temporary increase in ambient noise levels in excess of established standards, and the impact would be less than significant.

Operation

Operational Traffic

A significant impact would occur if implementation of the proposed project would result in a substantial increase in traffic noise levels. According to the applicable General Plan standards, operational noise levels should not exceed 65 dBA CNEL as measured at any residential land use adjacent to roadway segments used for project access. However, the County does not define what would be a significant increase for mobile source operational noise levels. According to Caltrans Traffic Noise Analysis Protocol (Caltrans 2020), in California a substantial noise increase is considered to occur when the project's predicted design-year noise level exceeds the existing noise level by 12 dBA or more. Therefore, for purposes of this analysis,

an increase of 12 dBA or greater above existing noise levels would be a substantial permanent increase in traffic noise levels.

Traffic noise levels along selected roadway segments in the project vicinity were modeled using the FHWA Traffic Noise Prediction Model (FHWA-RD-77-108). Site-specific information was entered, such as roadway traffic volumes, roadway active width, source-to-receiver distances, travel speed, noise source and receiver heights, and the percentages of automobiles, medium trucks, and heavy trucks that the traffic is made up of throughout the day, among other variables. The daily traffic volumes were obtained from the traffic analysis prepared for the project by Kimley-Horn (KHA 2024b). The traffic volumes described here correspond to the traffic scenarios analyzed in the traffic analysis. The model inputs and outputs—including the 60 dBA, 65 dBA, and 70 dBA CNEL noise contour distances—are provided in Appendix H of this document. 7, *Traffic Noise Increase Summary*, shows the traffic noise levels as measured at 50 feet from the centerline of the outermost travel lane.

TABLE 4.13-7: TRAFFIC NOISE INCREASE SUMMARY

Roadway Segment	Existing No Project (dBA) CNEL	Opening Year (2023) Plus Project (dBA) CNEL	Increase over Existing (dBA)	Cumulative Year (2042) Plus Project (dBA) CNEL	Increase over Existing (dBA)
Houghton Road–Highway 99 ramps to H Street	62.7	66.1	3.4	66.4	3.7
Houghton Road–H Street to Wible Road	61.5	63.6	2.1	64.2	2.7
Wible Road–Houghton Road to Shafter Road	57.4	63.2	5.8	63.8	6.4

Notes:

dBA = A-weighted decibel

CNEL = Community Noise Equivalent Level

Source: FirstCarbon Solutions (FCS). 2023.

As shown in **Table 4.13-7, *Traffic Noise Increase Summary***, the highest traffic noise level increase with implementation of the project would be 6.4 dBA compared to existing traffic noise levels. This is well below the 12 dBA increase that would be considered a substantial increase in traffic noise.

In addition, due to distance attenuation, the resulting traffic noise levels would not exceed 65 dBA CNEL as measured at any residential land use adjacent to these roadway segments. For example, the closest residence adjacent to the modeled segments of Houghton Road is located over 140 feet from the roadway centerline. At this distance, traffic noise levels even under horizon year (2046) plus project conditions would attenuate to below 63 dBA CNEL. The closest residence adjacent to the modeled segments of Wible Road is located over 230 feet from the roadway centerline. At this distance, traffic noise levels even under horizon year (2046) plus project conditions would attenuate to below 58 dBA CNEL.

This analysis demonstrates that project-related traffic would not result in a substantial permanent increase of 12 dBA or greater above existing traffic noise levels and would not exceed the County’s operational noise standard of 65 dBA CNEL as measured at any residential land use adjacent to roadway segments used for project access. Therefore, impacts from project-related traffic noise levels would be less than significant.

Operational Stationary Sources

A significant impact would occur if operational noise levels generated by stationary noise sources at the proposed project site would result in a substantial permanent increase in ambient noise levels in excess of applicable noise performance thresholds. The Metropolitan Bakersfield General Plan Noise Element establishes an exterior noise limit of 65 dBA CNEL and an interior noise limit of 45 dBA CNEL for stationary noise sources as measured at receiving noise-sensitive land uses.

Existing noise levels adjacent to the project site in the vicinity of the nearest sensitive receptor are documented, in **Table 4.13-2**, to be 57.4 dBA CNEL. Therefore, according to the General Plan Noise Element, the applicable significance criteria for a substantial noise increase would be a 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.

The proposed project would generate noise from truck delivery and loading and unloading activities at commercial loading areas; parking lot activities, which includes people conversing, doors shutting, engine startup, and slow-moving vehicles; and from new exterior mechanical equipment sources, such as rooftop ventilation systems on proposed commercial uses. Potential impacts from these noise sources are discussed below.

Truck Loading Activities

Noise would be generated by truck loading and unloading activities at the loading docks along the southern, western, and northern sides of the proposed building. Typical noise levels from truck loading and unloading activity range from 70 dBA to 80 dBA L_{max} as measured at 50 feet. These maximum noise level range includes noise from associated truck loading/unloading activity, including trucks maneuvering, truck trailer loading, truck trailer unloading, backup alarms or beepers, and truck docking noise.

The nearest noise-sensitive receptor is the single-family residential land use located southwest of the project site on Wible Road, approximately 1,360 feet from the nearest proposed loading dock. Because of distance attenuation, reasonable worst-case maximum noise levels from truck loading and unloading activities would attenuate to below 51 dBA L_{max} and 28 dBA L_{eq} at the receiving residential property line. Assuming these hourly average noise levels occurred every hour for a 24-hour period, they would result in a reasonable worst-case noise level of 35dBA CNEL as measured at the property line of this nearest receptor. These noise levels would not exceed the exterior noise limit of 65 dBA CNEL and would not exceed the interior noise limit of 45 dBA CNEL for stationary noise sources as measured at the nearest receiving noise-sensitive land use. In addition, these noise levels would not exceed existing ambient noise levels of 57 dBA CNEL.

Therefore, noise levels from truck loading and unloading activities would not generate a substantial temporary or permanent increase in ambient noise levels in the project vicinity in excess of standards established in the local general plan or noise ordinance, and the impact would be less than significant.

Parking Lot Activities

Typical parking lot activities include people conversing, doors shutting, and vehicles idling which generate noise levels ranging from approximately 60 dBA to 70 dBA L_{max} at 50 feet. These activities are expected to occur sporadically throughout the day as visitors and staff arrive and leave parking lot areas at the project site.

The nearest noise-sensitive receptor to proposed parking areas is the single-family residential dwelling located southwest of the project site, west of Wible Road. Proposed parking areas could be located approximately 750 feet from this closest sensitive receptor. At this distance, noise generated by typical parking lot activity would attenuate to below 46 dBA L_{max} and 28 dBA L_{eq} . Assuming these hourly average noise levels occurred every hour for a 24-hour period, they would result in a reasonable worst-case noise level of 34 dBA CNEL as measured at the property line of this nearest receptor. These noise levels would not exceed the exterior noise limit of 65 dBA CNEL and would not exceed the interior noise limit of 45 dBA CNEL for stationary noise sources as measured at the nearest receiving noise-sensitive land use. In addition, these noise levels would not exceed existing ambient noise levels of 57 dBA CNEL.

Therefore, noise levels from parking lot activity would not generate a substantial temporary or permanent increase in ambient noise levels in the project vicinity in excess of standards established in the local general plan or noise ordinance, and the impact would be less than significant.

Mechanical Equipment Operations

At the time of preparation of this analysis, details were not available pertaining to the proposed rooftop mechanical ventilation systems for the project; therefore, a reference noise level for typical rooftop mechanical ventilation systems was used. Noise levels from commercially available rooftop mechanical ventilation equipment range from 50 dBA to 60 dBA L_{eq} at a distance of 25 feet.

The nearest noise-sensitive receptor to proposed rooftop mechanical ventilation equipment is the single-family residential dwelling located southwest of the project site, west of Wible Road. Rooftop mechanical ventilation equipment would be located approximately 1,285 feet from this closest sensitive receptor. At this distance, noise generated by typical rooftop mechanical ventilation equipment would attenuate to below 23 dBA L_{max} and 23 dBA L_{eq} . Assuming these hourly average noise levels occurred every hour for a 24-hour period, they would result in a reasonable worst-case noise level of 29 dBA CNEL as measured at the property line of this nearest receptor. These noise levels would not exceed the exterior noise limit of 65 dBA CNEL and would not exceed the interior noise limit of 45 dBA CNEL for stationary noise sources as measured at the nearest receiving noise-sensitive land use. In addition, these noise levels would not exceed existing ambient noise levels of 57 dBA CNEL.

The proposed project would also include an emergency backup generator to power the sewer lift station pumps. The pumps would be submerged in the holding basin and therefore would not produce noise levels that would be audible at the project property line. However, the type of generator that would be used for this project is documented to produce noise levels of 55 dBA to 60 dBA as measured at a distance of 25 feet from the equipment skid. The generator would be located in the northeast corner of the project site, near the water supply pumphouse. The nearest noise-sensitive receptor is the single-family residential dwelling located southwest of the project site, west of Wible Road. The generator would be located more than 1,275 feet from this receptor. Therefore, operational noise levels from the emergency backup generator would attenuate to below 17 dBA as measured at the nearest residential receptor. These noise levels would not exceed the exterior noise limit of 65 dBA CNEL and would not exceed the interior noise limit of 45 dBA CNEL for stationary noise sources as measured at the nearest receiving noise-sensitive land use. In addition, these noise levels would not exceed existing ambient noise levels of 57 dBA CNEL.

Therefore, noise levels from on-site mechanical equipment operations would not generate a substantial temporary or permanent increase in ambient noise levels in the project vicinity in excess of standards established in the local general plan or noise ordinance, and the impact would be less than significant.

Mitigation Measures

MM 4.13-1 The following measures are required to reduce short- term noise levels associated with project construction:

1. 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 p.m. to 6:00 a.m. on weekdays, and between 9:00 p.m. to 8:00 a.m. on weekends. These hourly limitations shall not apply to activities where hourly limitations would result in increased safety risk to workers or the public.
2. Equipment staging and laydown areas shall be located at the farthest 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.
3. 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.
4. 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).
5. On-site vehicle speeds shall be limited to 15 miles per hour, or less (except in cases of emergency).
6. Backup 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 backup 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:

1. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise.
2. 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 The following notes shall be placed on all grading and building permits issued for the project site:

- a. *“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.”

- b. *“During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.”*
- c. *“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

With implementation of **Mitigation Measure MM 4.13-1** through **MM 4.13-3**, impacts would be less than significant.

Impact 4.13-2: The project would generate excessive groundborne vibration or groundborne noise levels.

A significant impact would occur if predicted short-term construction or long-term operational groundborne vibration levels attributable to the project would exceed the recommended criteria (refer to **Table 4.13-3 Vibration Criteria for Structural Damage** and **Table 4.13-4 Vibration Criteria for Human Annoyance**) for structural damage or human annoyance (i.e., 0.25 and 0.1 in/sec PPV, respectively) as measured 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.

Short-term Construction Vibration Impacts

Of the variety of equipment used during construction, the large vibratory rollers that could be used in the site preparation and roadway improvements phases of construction would produce the greatest groundborne vibration levels. Large vibratory rollers produce groundborne vibration levels ranging up to 0.210 inch per second (in/sec) PPV at 25 feet from the operating equipment.

The nearest off-site structure to the project construction footprint where the heaviest construction equipment would operate is the agricultural shed for Martin Feed Inc., located north of the project site on Houghton Road. The façade of this structure would be located approximately 235 feet from the nearest point on the project site where the heaviest construction equipment would potentially operate. At this distance, groundborne vibration levels would attenuate to below 0.002 in/sec PPV from operation of the types of equipment that would produce the highest vibration levels. This is well below the structural damage threshold criteria of 0.25 PPV. Therefore, the impact of construction-related short-term groundborne vibration to off-site structures would be less than significant.

Operational Vibration Impacts

Operation of the project would involve operational traffic, including regular trips by delivery trucks (generating approximately 0.076 in/sec PPV as measured at 25-feet). The closest residential receptor adjacent to the access roadways in the project vicinity are located over 160 feet from the nearest travel lane. At this distance vibration levels would attenuate to below .005 in/sec PPV. This is well below the annoyance threshold criteria of 0.1 in/sec PPV. Additionally, it should be noted for informational purposes that there

are no active sources of groundborne vibration in the project vicinity that would produce vibration levels that that would exceed the annoyance threshold criteria of 0.1 in/sec PPV as measured inside any proposed structure on the project site. Therefore, the proposed project would not generate groundborne vibration or groundborne noise levels in excess of established standards and there would be no impact related to operational groundborne vibration.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Impact 4.13-3: The project would result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

As noted in the significance criteria discussion above, for purposes of this analysis, an increase of 12 dBA or greater above existing noise levels would be a substantial permanent increase in traffic noise levels. As discussed under **Impact 4.13-1**, the highest traffic noise level increase with implementation of the project would be 6.4 dBA compared to existing traffic noise levels. This is well below the 12 dBA increase that would be considered a substantial increase in traffic noise. Therefore, project-related traffic noise increases would be less than significant.

As discussed under **Impact 4.13-1**, noise levels from on-site stationary noise sources, including truck loading/unloading activity, parking lot activity, and mechanical ventilation system operations, would result in noise levels of 35 dBA, 34 dBA, and 29 dBA CNEL, respectively, as measured at the nearest receiving noise-sensitive land use. As shown in Table 4.13-7, the existing traffic noise level adjacent to this nearest receptor is 57.4 dBA CNEL. Therefore, since project stationary operational noise levels would not exceed the existing background noise levels in the vicinity of the nearest sensitive receptor, they would be considered a less than significant impact.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Impact 4.13-4: The project is not located within the Kern County Airport Land Use Compatibility Plan and would not expose people residing or working in the area to excessive noise levels.

A significant impact would occur if the proposed project would expose people residing or working in the project area to excessive noise levels for a project located in the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport.

The nearest public airport to the project site is the Bakersfield Municipal Airport, located approximately 6 miles northeast of the project site. At this distance, the project site is located outside of the 60 dBA CNEL airport noise contours. While aircraft noise is occasionally audible on the project site from aircraft flyovers, aircraft noise associated with nearby airport activity would not expose people residing or working near the project site to excessive noise levels. Therefore, implementation of the project would not expose persons residing or working in the project vicinity to noise levels from airport activity that would be in excess of normally acceptable standards for the proposed land use development, and no impact would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

Impacts of the project would be cumulatively considerable if they would have the potential to combine with other past, present, or reasonably foreseeable projects to become significant. Cumulative projects are listed in **Chapter 3**, Project Description, **Table 3-5**, *Cumulative Projects List*. The geographic scope for cumulative noise impacts is 1,000 feet. The only cumulative project listed that is within 1,000 feet of the project site is the project at 2909 Houghton Road, bordering the eastern and southern boundaries of the project site. As shown in the analysis above, there is not an existing noise impact at the nearest receptors in the project vicinity; rather, all noise levels are considered normally acceptable for existing land uses. In addition, as shown in the analysis above, project construction noise levels would not exceed existing ambient noise levels as measured at the nearest receptors. The closest cumulative project to the project site is located east of the project site, even further from the nearest off-site sensitive receptor. Therefore, even if construction of both projects were to occur simultaneously, the proposed project could not result in a significant contribution to a cumulative noise impact condition related to construction noise. Additionally, as explained above, implementation of **Mitigation Measures MM 4.13-1** through **MM 4.13-3** would require the project proponent establish an on-site Noise Disturbance Coordinator and implement other noise-reducing measures to manage short-term noise levels associated with project construction and ensure that construction noise levels are in compliance with applicable regulations. Any complaints filed with the Noise Disturbance Coordinator would be disclosed to the County of Kern. Implementation of these measures would also ensure that the project does not contribute to cumulatively considerable noise impacts.

Cumulative traffic noise levels, as mentioned above, would have the highest increase of 6.4 dBA compared to existing traffic noise levels. This is well below the 12 dBA threshold that the Caltrans Traffic Noise Analysis Protocol (2020) would consider a substantial permanent increase of traffic noise levels. The highest noise levels even under cumulative plus project conditions would attenuate to approximately 63.8 dBA CNEL as measured at any residential land use adjacent to the project's roadway segments. These traffic noise levels would be considered normally acceptable for all land uses adjacent to the project's modeled roadway segments. Therefore, project-related traffic noise levels would not result in a cumulatively considerable contribution to the noise environment in the project vicinity.

Stationary noise sources of truck loading activities, parking lot activities, and mechanical equipment operations would result in worst-case noise levels that could range from 29 dBA CNEL to 35 dBA CNEL, as measured to the nearest sensitive receptor. These noise levels would not exceed the existing traffic noise

levels that are experienced at off-site receptors in the project vicinity. In addition, due to the distance of other nearby projects, stationary source noise levels from operation at these facilities would attenuate to below existing ambient noise levels in the vicinity of the proposed project. Therefore, they would not result in a combined increase in ambient noise levels as measured at any receptor in the project vicinity. Thus, project-related stationary source noise levels would not result in a cumulatively considerable contribution to the noise environment in the project vicinity.

With regard to vibration impacts, the geographic scope of cumulative impacts would be 100 feet. Because cumulative development projects would be located more than 100 feet from the project buildings, this would preclude any potential for combined vibration levels that would be perceptible to any receptor within the project vicinity. Therefore, project-related vibration levels would not result in a cumulatively considerable contribution to the environment in the project vicinity.

As discussed above, the Bakersfield Municipal Airport is located 6 miles northeast of the proposed project site. As a result, the proposed project would be well outside the 60 dBA CNEL airport noise contours and no impact would occur. Therefore, cumulative impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.13-1** through **MM 4.13-3** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.13-1** through **MM 4.13-3**, impacts would be less than significant.

Section 4.14
Population and Housing

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4.14.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) examines the impacts of the proposed project on population, housing, and employment in the area. This section also outlines the existing population and housing in the area, as well as projected population growth, future housing demands, and employment growth in Kern County (County). Information in this section is based on data from the Kern Council of Government (Kern COG), including its Regional Transportation Plan (Kern COG 2022a) and its Regional Housing Needs Allocation Plan (Kern COG 2022b); the Kern County Housing Element 2015–2023; the U.S. Department of Labor; the California Employment Development Department (EDD); and California Department of Finance (CDF) demographic information.

4.14.2 Environmental Setting

Existing and Projected Population

Within an area of 8,161 square miles, Kern County is the third largest county in California. The proposed project is specifically located in the southwest portion of Kern County in the Metropolitan Bakersfield Planning area. According to CDF, the population in Kern County was 908,107 persons as of January 1, 2022, and 907,476 persons as of January 1, 2023 (CDF 2023a). This represents a decrease of 0.1 percent over 1 year. Of those 907,476 residents, approximately 303,525 persons (or 34 percent) reside within unincorporated Kern County (CDF 2023a).

Population growth is expected in Kern County. According to CDF’s projections, the County’s population is anticipated to increase to 940,257 persons by the year 2030 and 970,794 persons in 2045 (CDF 2023b). According to Kern COG’s 2022 Regional Transportation Plan (RTP), the population of Kern County has increased at a rate of approximately 7,000 people per year, a rate over 60 percent lower than the previous decade (2000-2010). The 2022 RTP carries a predicted population growth 51 percent lower than the previous 2018 RTP (Kern COG 2022a). The 2022 RTP indicates that population growth in the region will be predominantly employment opportunities, housing costs, and the completion of the Bakersfield to Palmdale to Burbank high-speed rail line.

Existing and Projected Housing

In 2010, Kern County had a total of 284,367 housing units; in 2022, there were 305,853 units (CDF 2021, 2023). Approximately 93.4 percent of the 305,853 units were occupied, and 19,950 (or 6.5 percent) of the units were vacant in 2022 (CDF 2023). According to the U.S. Census Bureau, between 2017 and 2021, 58.3 percent of the housing units were owner occupied (U.S. Census Bureau 2021). Housing units and occupancy/vacancy rate trends for 2020 and 2022 are reflected in Table 4.13-1, *Kern County Housing Trends*.

TABLE 4.13-1: KERN COUNTY HOUSING TRENDS

Area	Unit Count			Occupancy/Vacancy Rate		
	2020	2022	Percent Change	Occupied 2020	Occupied 2022	Percent Change
Incorporated	188,710	193,032	2.29	180,479/4.4 %	184,509/4.4 %	2.23/0.0
Balance of the County	112,299	112,821	0.46	101,019/10.0 %	101,206/10.3 %	0.19/3.0
TOTAL	301,009	305,853	1.61	281,498/6.5 %	285,715/6.6 %	1.5/1.5

Source: CDF 2022b

Existing and projected housing in the region and vicinity (including incorporated cities), as reported by the Kern County RTP/SCS are presented in **Table 4.13-2** (households) and **Table 4.13-3** (housing units and households incorporated cities and surrounding County areas).

TABLE 4.13-2: ESTIMATED AND PROJECTED HOUSING TRENDS WITHIN INCORPORATED AND UNINCORPORATED REGIONAL STATISTICAL AREAS

Area	2010	2013	2023	Percent Change 2013-2023
Greater Arvin Area	4,596	5,036	6,503	29.1
Unincorporated Greater Arvin Area	368	721	803	11.4
Metro-Bakersfield	168,373	178,842	217,548	21.6
Unincorporated Metro-Bakersfield	57,241	65,555	87,348	33.2
Greater Delano/McFarland Area	13,712	14,327	16,239	13.4
Unincorporated Greater Delano/McFarland Area	853	1,285	1,239	-3.6
Greater Shafter Area	6,212	7,071	10,588	49.7
Unincorporated Greater Shafter Area	1,982	2,757	3,788	37.4
Greater Taft/Maricopa Area	6,189	6,578	7,863	19.5
Unincorporated Greater Taft/Maricopa Area	3,521	3,915	4,953	26.5
Greater Tehachapi Area	11,614	12,466	15,672	25.7
Unincorporated Greater Tehachapi Area	8,493	9,272	11,872	28.0
Greater Wasco Area	6,087	6,435	7,905	22.8
Unincorporated Greater Wasco Area	956	1,142	905	-20.8
TOTAL	290,197	315,402	393,226	24.7

Source: Kern COG 2014

TABLE 4.13-3: ESTIMATED AND PROJECTED HOUSING UNIT TRENDS WITHIN INCORPORATED CITIES

		Housing Units				Households			
Area		2010	2013	2023	% Change 2013-2023	2010	2013	2023	% Change 2013-2023
City of Arvin	of	4,476	4,568	6,000	31.32%	4,228	4,315	5,700	32.1
City of Bakersfield	of	120,725	123,066	140,500	14.17%	111,132	113,287	130,200	14.9
Delano		10,713	10,831	12,500	15.41%	10,260	10,373	12,000	15.7
McFarland		2,683	2,755	3,100	12.52%	2,599	2,669	3,000	12.4
City of Shafter	of	4,521	4,612	7,200	56.11%	4,230	4,314	6,800	57.6
City of Taft		2,525	2,522	2,800	11.02%	2,254	2,251	2,500	11.1
City of Maricopa	of	466	464	500	7.76%	414	410	410	0.0
City of Wasco	of	5,477	5,649	7,400	31.00%	5,131	5,293	7,000	32.3
TOTAL		151,586	154,468	180,000	16.53%	140,248	142,912	167,610	17.3

Source: Kern COG 2014

The CDF estimates that 112,918 dwelling units were located within the unincorporated area of Kern County as of January 1, 2023. The average number of persons per household in the unincorporated area of Kern County was 2.96. Approximately 10 percent of the dwelling units within the unincorporated area were vacant.

Existing and Projected Employment

According to the California EDD, Kern County consistently ranks among the top five most-productive agricultural counties in the United States and is the nation's third largest petroleum-producing county. Additionally, because of its unique geographic location, Kern has also become the distribution center 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 2022, Kern County's civilian labor force grew by 5.2 percent (372,200 and 391,700, respectively). The employed labor force grew by 16.1 percent between 2010 and 2022 (312,600 and 364,600, respectively) (EDD 2021). The Kern Economic Development Corporation (KEDC) projects the fastest growing occupations within Kern County between 2018 and 2028 to be within the Education, Healthcare and Social Assistance industry and Transportation, Warehousing and Utilities industry (KEDC 2023).

In 2023, the annual average number of individuals participating in the Kern County labor force was 387,500; of these, 360,500 were employed, leaving 27,000 actively looking for work. Based on the KEDC

2023 Market Overview, industry employment in Kern County is projected to reach 382,200 by 2028, an increase of 9.4 percent over the 10-year period. As a result, the unemployment rate in Kern County remains high at 7%.

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 but is projected to decrease to 1.03 by 2023. Similarly, the ratio of jobs to housing units in unincorporated areas of Kern County is expected to decrease from 1.13 (2013) to 0.83 (2023) (Kern COG 2014).

As of September 2023, Kern County had a labor force of 400,300 persons (EDD 2023). An estimated 30,100 people (approximately 7.5 percent) of the labor force were unemployed. In September 2023, Kern County's current unemployment rate was higher than California's rate (4.5 percent) and lower than the national rate (3.6 percent) for September 2023 (United States Bureau of Labor Statistics [BLS] 2023). The County's predominant industries for employment are government, trade, transportation and utilities, agriculture, and educational and health services. The government industry accounts for approximately 18.2 percent (65,600 jobs) of Kern County's employment (EDD 2023).

4.14.3 Regulatory Setting

Federal

There are no applicable federal regulations related to population and housing.

State

California State law requires each city and county to adopt a general plan for future growth containing at least seven mandatory elements, including housing. The plan must identify housing needs for all economic segments and provide opportunities for housing development to meet those needs. The housing element, unlike other general plan elements, is required to be updated every 5 to 6 years and is subject to detailed statutory requirements and mandatory review by a State agency, the California Department of Housing and Community Development (HCD) (HCD 2018). Among other things, the housing element must incorporate policies and identify potential sites that would accommodate the County's share of the regional housing need. Before adopting an update to its housing element, the jurisdiction must submit the draft to HCD for review. HCD will advise the local jurisdiction whether its housing element complies with the provisions of California Housing Element Law.

At the State level, HCD estimates the relative share of California's projected population growth that would occur in each county in the State based on CDF population projections and historic growth trends. Where there is a regional council of governments, as in Kern County, HCD provides the regional housing need to the council. The council then assigns a share of the regional housing need to each of its cities and counties. The process of assigning shares provides cities and counties the opportunity to comment on the proposed allocations. HCD oversees the process to ensure that the council of governments distributes its share of the State's projected housing need.

The councils of governments are required to assign regional housing shares to the cities and counties within their region on a similar 5-year schedule. At the beginning of each cycle, HCD provides population

projections to the councils of governments, who 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.

Under California Housing Element Law, Kern COG is the regional council of governments responsible for allocating the regional housing need to the County. Kern COG must identify areas within the region sufficient to house an 11-year projection of the Regional Housing Need Allocation (RHNA). The RHNA must allocate housing units within the region consistent with the development pattern included in the Sustainable Communities Strategy (SCS) and the RTP. Pursuant to Government Code, Section 95584, the RHNA is required by State law and is based on countywide housing projections developed by the HCD. The sixth cycle regional housing needs assessment determination projection period is June 30, 2023, through December 31, 2031 (Kern COG 2022b).

Regional Housing Need Allocation Process

RHNA is the State-mandated process to identify 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 the 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 to update their housing elements 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 together with the RHNA in an effort 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 (1) connecting regional land use planning to regional transportation planning, (2) coordinating regional housing needs, (3) providing incentives for local governments to implement regional plans through funding opportunities, and (4) providing incentives to developers whose proposals are consistent with regional plans in order 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 designed to reduce air emissions from passenger vehicles and light-duty trucks to help meet GHG reduction targets. This SCS

is a chapter of the 2014 RTP, which was approved on June 19, 2014, by the Kern COG Board functioning as the Transportation Planning Policy Committee.

The proposed SCS document includes a Map of Forecasted Development Patterns—Kern Region 2035, which conceptually depicts in a generalized manner future development patterns consistent with the cities' and county general plans.

Table 4-8, *Proposed Greenhouse Gas Emissions and Vehicle Trips Reduction Strategies*, of the 2014 RTP (Kern COG, 2014a), presents a range of transit, transportation demand management road projects, pricing, and land use strategies that Kern COG, transit agencies, and local governments can pursue in conformance with the SCS. A land use strategy of particular importance to be implemented by local governments is to “rebalance housing closer to employment/shopping areas.” This strategy is specifically acknowledged for use in outlying communities near jobs.

As part of the RHNA allocation process, Kern COG must identify areas within the region sufficient to house an 11-year projection of the regional housing need. Additionally, the RHNA must allocate housing units within the region consistent with the generalized forecasted development pattern included within the SCS. The SCS forecasted development pattern is based on city and county general plans. The goal of this coordination between the RHNA, SCS, and RTP processes is to provide enhanced housing and transportation choices and a higher quality of life, and to promote a vibrant economy.

Local

Kern County General Plan

The Kern County General Plan (KCGP) is a policy document with planned land use maps and related information 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 designed to protect and further the public interest related to the County's growth and development.

Although the proposed project site is located within the Metropolitan Bakersfield General Plan planning area, discussion of the Kern County Housing Element of the KCGP is referenced herein relative to the proposed 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, in order 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 and, in particular, 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.

As stated previously, to receive regional housing funds, each city and county must update its general plan housing element on a regular basis (generally, every 5 to 6 years). The housing element must incorporate policies and identify potential sites that would accommodate the or County’s share of the regional housing needs. The 6th Cycle Kern County Housing Element (2024-2031) is currently in public review with adoption required by April 2024. Because the proposed project would not include new housing, the goals and policies of the Housing Element do not apply to the proposed project.

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.

HCD provides each regional council of governments 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. HCD provides this figure to regional councils of governments on a 5-year schedule; councils of governments, 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 Regional Housing Needs Allocation (RHAP) in the Kern COG region.

The RHAP 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 the total number of units needed in the County by 2031 is 57,650, as detailed in **Table 4.14-1: Total Adopted Regional Housing Needs Assessment by Income Category for Kern County**. For the unincorporated areas, 9,243 units, or 16.03 percent of the County total, are needed by 2031, as illustrated in **Table 4.14-2: Adopted Regional Housing Needs Assessment by Income Category for Unincorporated Areas**.

TABLE 4.14-1: TOTAL ADOPTED REGIONAL HOUSING NEEDS ASSESSMENT BY INCOME CATEGORY FOR KERN COUNTY

Income Category for Kern County	Number of Housing Units	Percent of Total RHNA
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 Council of Governments (Kern COG) 2022b.

TABLE 4.14-2: ADOPTED REGIONAL HOUSING NEEDS ASSESSMENT BY INCOME CATEGORY FOR UNINCORPORATED AREAS

Income Category for Kern County	Number of Housing Units	Percent of Total RHNA
Very Low Income	3,599	6.24%
Low Income		
Moderate Income	5,643	9.79%
Above Moderate Income		
TOTAL	9,243	16.03%

Source: Kern Council of Governments (Kern COG) 2022b.

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 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 are also the City of Bakersfield adopted Sphere of Influence (SOI). The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for population and housing applicable to the proposed project are provided below.

The KCGP and Metropolitan Bakersfield General Plan (MBGP) are policy documents with planned land use maps and related information designed to provide long-range guidance to County officials making decisions affecting development and the resources of the unincorporated Kern County and Metropolitan Bakersfield jurisdictions. The KCGP and MBGP help 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 proposed project site is located in the MBGP area. The MBGP does not contain all policies, goals, and implementation measures pertinent to this proposed project; therefore, below are the applicable policies, goals, and implementation measures for public services found in the KCGP. The KCGP contains additional policies, goals, and implementation measures that are more general in nature and not specific to development such as the proposed project. Therefore, they are not listed below. However, as stated in **Chapter 2, Introduction**, of this EIR, all policies, goals, and implementation measures in the KCGP are incorporated by reference.

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

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.
34. Provide for the clustering of new industrial development adjacent to existing industrial uses and along major transportation corridors.
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.
36. Require that industrial uses provide design features, such as screen walls, landscaping and height, set back 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.
38. Minimize impacts of industrial traffic on adjacent residential parcels through the use of site plan review and improvement standards.

Impacts and Mitigation Measures

This section of the EIR describes the impact analysis relating to population and housing for the proposed project. It describes the methods used to determine the impacts of the proposed project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, where applicable.

Methodology

The potential impacts to population growth and housing associated with the proposed project were evaluated on qualitative and quantitative analyses of the proposed project's related increases in population and housing compared to planned growth estimates and population projections for the unincorporated areas in Kern County and the Metropolitan Bakersfield area. The evaluation of the impacts of the proposed project is based on professional judgment, the significance criteria established by CEQA and the County, and an analysis of the Metropolitan General Plan goals and policies related to population growth.

Thresholds of Significance

The Kern County CEQA Implementation Document and Kern County Environmental Checklist, 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:

- a. 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);
- b. Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere; or,
- c. 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 proposed project would require both a temporary construction workforce and a permanent operational workforce, which could potentially induce population growth in the proposed project area in the event that prospective employees relocate into the area to support construction and/or operation.

The proposed project would require a temporary workforce to construct the concrete tilt-up panel warehouse, pumphouse, substation, and associated improvements. The number of on-site construction workers needed would largely depend on the specific phase of construction but would likely range between a few dozen workers up to 100 at any given time. It is anticipated that the construction workforce would commute to the project site from local communities. At buildout, the proposed project would operate 24 hours a day, 365 days a year, and would consist of a day and night shift. The facility would employ approximately 915 employees per shift (1,830 total) in peak season and 732 employees per shift (1,464 total) in non-peak season.

According to data provided by EDD, the unemployment rate in the Bakersfield Metropolitan Statistical Area (MSA) and Kern County was 7.5 percent in September 2023, down from 8.0 percent in August 2023. This regional unemployment rate is still above the California unemployment rate (4.9 percent) and national (3.6 percent) average. Thus, the temporary and permanent employees required by the proposed project could come from the surrounding areas within the Bakersfield MSA without the need for relocation. The

California CDF estimates that, as of January 2023, Kern County has approximately 308,365 housing units and a vacancy rate of 6.5 percent. Furthermore, the CDF estimates 112,918 dwelling units within the unincorporated areas of the County with a vacancy rate of 10 percent. Sufficient housing would be available to accommodate any direct population growth induced by the proposed project. Therefore, impacts would be less than significant.

The proposed 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***, the proposed project would connect to existing service laterals located within Wible Road and Houghton Road for electricity, and water. The proposed project would include its own on-site storm drainage and private wastewater collection and treatment package system and therefore would not extend or connect to nearby storm drains or wastewater laterals. As outlined under **Mitigation Measure MM 4.17-1**, the proposed project would be required to provide improvements to the intersection at Houghton Road and Union Road, including providing turn pockets and signalization to the intersection. However, these improvements would not cause an increase in jobs, housing, or population growth. Therefore, impacts associated with population growth and housing resulting from construction and operation of the proposed project would be less than significant and no mitigation is necessary.

Mitigation Measures

No mitigation measures required.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact 4.14-2: Displace substantial numbers of existing housing units, necessitating the construction of replacement housing elsewhere?

The project site is currently used as an active agricultural field and has been historically covered by row crops. There are no housing units located on the project site, and the nearest residence to the project site is located approximately 400 feet west of the southwest corner of the site. Therefore, the proposed project would not displace a substantial number of existing housing units and would not necessitate the construction of replacement housing. No impact would occur.

Mitigation Measures

No mitigation measures required.

Level of Significance after Mitigation

No impact.

Impact 4.14-3: Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

As stated in **Impact 4.14-2**, there are no residences located on the project site and the nearest residence is located 400 feet west of the southwest corner of the site. Therefore, the proposed project would not displace

any people and would not necessitate the construction of replacement housing elsewhere. No impact would occur.

Mitigation Measures

No mitigation measures required.

Level of Significance after Mitigation

No impact.

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 proposed project site. As shown in **Chapter 3, Project Description, Figure 3-9 Cumulative Projects** and **Table 3-5** of this Draft EIR, a number of warehouse projects are proposed in the project vicinity. All of these projects may have the potential to induce population growth, however, they would be able to be staffed by the existing regional workforce within Kern County. Cumulative projects would be required to address potential environmental impacts as part of their individual project review. As mentioned previously, the population within the County is expected to increase to 940,257 persons in 2045. As such, cumulative projects would be consistent with planned growth within the County.

Therefore, the proposed project would have a less than significant impact cumulative impact on population and housing.

The proposed project would most likely be staffed by residents of Bakersfield and surrounding areas within the County, and would therefore not likely induce significant population growth. However, as described in **Impact 4.14-1**, given a conservative analysis and assuming that all employees relocate to the area, the proposed project would account for a very small percentage of the projected population increase predicted by Kern COG. Therefore, the proposed project, in conjunction with the current and future projects listed in Chapter 3, Project Description, would not have a cumulatively considerable impact on direct and indirect population growth.

As stated in **Impacts 4.14-2 and 4.14-3**, there are no residences on the project site. As such, no housing units or persons would be displaced as a result of the proposed project. The area surrounding the project site consists largely of agricultural land uses, with very few residences in the vicinity. Furthermore, similar projects would also be located in a rural area within the County and would therefore not be located on existing sites with a significant number of residents. As such, the proposed project in conjunction with the current and future projects listed in **Chapter 3, Project Description**, would not displace a substantial number of housing units or persons. Cumulative impacts would be less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance after Mitigation

Impacts would be less than significant.

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Section 4.15
Public Services

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4.15.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting pertaining to public services, which include fire and law enforcement protection. This section also addresses the potential impacts on public services that would result from implementation of the proposed project and the mitigation measures to reduce these potential impacts. Information for this section was taken from numerous sources, including the Metropolitan Bakersfield General Plan, service agency websites, and service agency plans.

4.15.2 Environmental Setting

Fire Protection

The Kern County Fire Department (KCFD) provides primary fire protection, fire prevention, emergency medical, and rescue services to more than 500,000 people over 8,000 square miles, which encompasses the unincorporated areas of Kern County (County) and the cities of Arvin, Delano, Maricopa, McFarland, Ridgecrest, Shafter, Taft, Tehachapi, and Wasco. KCFD operates 47 full-time fire stations throughout the County. KCFD is staffed with 621 permanent employees, including over 521 uniformed fire fighters. KCFD's firefighting force consists of seven battalions and is equipped with 30 command vehicles, 58 fire engines, six ladder trucks, 54 patrol vehicles, 30 command vehicles, five crew buggies, six dozers, seven reserve dozers, one masticator, two helicopters, three hazardous material response teams, and other ancillary vehicles and equipment. In addition, KCFD is engaged in 14 Mutual Aid Agreements with neighboring fire suppression organizations (KCFD 2023).

In 2021 the KCFD recorded a total of 62,718 incidents. These incidents included fires, Emergency Medical Services (EMS)/rescues, hazards, service calls, and “other” incidents (KCFD 2022a)

The project site is located approximately 1.30 miles south of the Bakersfield city limits in unincorporated Kern County. The project site is located within Battalion 4 and 6, Valley/Foothill, which are predominantly Local Responsibility Areas (LRA) to the south and east of Bakersfield. There are 96,023 State Responsibility Area (SRA) acres within Battalion 4; however, within the SRA of Battalion 4 there are no existing towns or cities (either incorporated or unincorporated) and only one subdivision of note (KCFD 2022b). KCFD Fire Station No. 47, located at 312 Taft Highway, is approximately 2.53 miles to the northeast of the project site and would be the primary responder to a fire or emergency at the project site. In the event of a major fire or when short-staffed, other stations would be called on to respond as necessary, including Fire Station No. 53, located at 9443 Taft Highway. Information on the five KCFD stations nearest to the project site is included in Table 4.15-1 below. In rural county areas like the project site, the average response time is approximately 11 minutes (Center for Public Safety and Land Management [CPSM] 2017).

According to California Department of Forestry and Fire Protection (CAL FIRE), the project site is not located within an SRA (CAL FIRE 2022). The Kern County Fire Hazard Safety Zone (FHSZ) Maps for the LRA identify the project site as LRA Unzoned (CAL FIRE 2007).

Upon consultation with the KCFD, there are no current or future plans to construct a fire suppression road within the project boundary.

Kern County applies and utilizes the National Fire Code set forth by the National Fire Protection Association (NFPA), the California Fire Code, the California Building Standards Code (CBC), and the Kern County Ordinance Code to regulate fire safety.

The Kern County EMS Division is the lead agency for the EMS system in Kern County and is responsible for coordinating all system participants in the County, which includes the public, fire departments, ambulance companies, other emergency service providers, hospitals, and Emergency Medical Technician (EMT) training programs throughout the County. 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. The EMS Division covers day-to-day emergencies, disaster medical response planning and preparation, and preventive health care. The EMS Division also provides certification and recertification for EMTs, paramedics, specialized nurses, and specialized dispatchers (Kern County Public Health 2023). The closest hospital to the project site is the Mercy Hospital Southwest, located at 400 Old River Road, Bakersfield, approximately 8.87 miles northwest of the project site. The next closest hospital to the project site is the Mercy Hospital Downtown, located at 2215 Truxtun Avenue, Bakersfield, approximately 9.29 miles north of the project site. Other nearby hospitals include Bakersfield Memorial Hospital, approximately 10.64 miles north of the project site, and Kern Medical Center, approximately 10.55 miles northeast of the project site.

An inventory of fire facilities in the project area is provided below in **Table 4.15.2-1: List of Nearby Fire Stations**. The table identifies each type of facility, the name and address of the facility, and the approximate distance from the project site.

TABLE 4.15.2-1: LIST OF NEARBY FIRE STATIONS

Agency	Facility	Address	Approximate Distance from Project Site
KCFD	Fire Station No. 47	312 Taft Highway Bakersfield, CA 93307	2.53 miles northeast of the project site
KCFD	Fire Station No. 53	9443 Taft Highway Bakersfield, CA 93311	4.38 miles northwest of the project site
KCFD	Fire Station No. 46	8225 McKee Road Lamont, CA 93241	7.28 miles northeast of project site
KCFD	Fire Station No. 41	2214 Virginia Avenue Bakersfield, CA 93307	9.31 miles northeast of the project site
KCFD	Fire Station No. 48	301 Campus Drive Arvin, CA 93203	11.35 miles east 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 and is responsible for crime prevention, field patrol (ground and air), crime investigation, 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 investigation of property damage reports and traffic accidents. Complete investigations are conducted for injury, fatal, intoxication-related, and hit-and-run accidents.

The KCSO is currently staffed with 1,202 sworn and civilian employees, 567 authorized deputy sheriffs, 338 detention deputy positions, and 297 professional support staff (KCSO 2023a). The KCSO is broken up into four bureaus: Support Services, Detentions, Law Enforcement, and Investigations. The KCSO headquarters is located at 1350 Norris Road in the City of Bakersfield. The KCSO consists of 14 substations that provide patrol services between four substation sections—north, east, northeast, and south (KCSO 2023b). The nearest substation that would provide service to the project site is the Lamont substation located approximately 6.62 miles east of the project site, at 12022 Main Street, between the communities of Weedpatch and Lamont. This substation provides services to approximately 15,000 residents and businesses throughout an 840-square-mile area in Kern County, including a vast and isolated agricultural area, remote business locations, and the unincorporated township of Lamont. The Lamont substation is the busiest substation in the County and is staffed by one sergeant, three senior deputies, 20 deputy sheriffs, and two sheriff support technicians. The substation is also supplemented with an active Citizen Service Unit (KCSO 2023c). Other substations in proximity to the project site include the Frazier Park and Taft substations. Information on the three closest substations to the project site is included in **Table 4.15.2-2:** *List of Nearby Police Substations.*

TABLE 4.15.2-2: LIST OF NEARBY POLICE SUBSTATIONS

Agency	Facility	Address	Approximate Distance from Project Site
KCSO	Lamont Substation	12022 Main Street Lamont, CA 93241	6.62 miles east of the project site
KCSO	Taft Substation	315 North Lincoln Street Taft, CA 93268	24.67 miles west of the project site
KCSO	Frazier Park Substation	617 Monterey Trail Frazier Park, CA 93255	28.60 miles south of the project site

The KCSO strives to respond to calls as quickly as possible. Calls that involve a danger to someone’s personal safety 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. 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-and-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 non-emergency call could be 8 minutes or more, depending on staffing and the number of other calls for service.

California Highway Patrol

As a major statewide law enforcement agency, the California Highway Patrol (CHP) is responsible for managing and regulating traffic for the safe, lawful, and efficient use of California highways. The CHP patrols State highways and all county roadways, enforces traffic regulations, responds to traffic accidents, and provides service and assistance to disabled vehicles. The CHP has a mutual aid agreement with KCSO.

The CHP is divided into eight divisions that provide services in areas of California (CHP 2023a). The project site is within the jurisdiction of the Central Division, which includes the encompasses the heart of the San Joaquin Valley with two long freeway segments, a 244-mile stretch of State Route (SR) 99 and a 275-mile stretch of Interstate 5 (I-5), which run the flat length of the Division (CHP 2023b). The nearest CHP office to the project site is Office 420, part of the Central Division, located at 9855 Compagnoni Street in the City of Bakersfield, approximately 1.83 miles north of the project site.

Schools/Parks/Other Public Facilities

The project site is located within the General Shafter School District (GSSD), which consists of a single elementary school (Kern County Superintendent of Schools [KCSOS] 2021). This school serves approximately 190 students in kindergarten through Grade 8 across 240 square miles (GSSD 2023). Other school districts located in the vicinity include Arvin Union School District, Lamont Elementary School District, El Tejon Unified, Maricopa Unified, Fairfax School District, Lakeside Union Elementary School District, Vineland School District, Panama-Buena Vista Union School District, and Greenfield Union School District, which include 43 school districts (KCSOS 2021). The closest school to the project site is the General Shafter Elementary School, located approximately 0.66 mile southeast of the project site. The project site is also within the Kern High School District (KHSD). The KHSD operates 19 high schools in addition to one adult school and several alternative education schools (KHSD 2023a). The project site is within the attendance boundary of Ridgeview High School, which is located approximately 2.85 miles northwest of the project site (KHSD 2023b).

The Kern County Parks and Recreation Department (Department) manages neighborhood and community parks, as well as several large recreation areas, throughout the County. The Department owns approximately 4,702 acres of parkland across 48 sites, with seven regional parks accounting for over 90 percent of the total acreage owned. The nearest County regional park to the project site is the Buena Vista Aquatic Recreation Area, which is approximately 12.28 miles west of the project site. The remaining 420 acres of parkland owned by the Department is divided across 40 neighborhoods parks. According to the Department's Park and Recreation Master Plan, the Department aims to provide 5 acres of park land per 1,000 residents. This standard applies to regional parks serving the County as well as local parks in unincorporated areas. In addition to local and regional parks managed by the Department, the County contains an extensive network of parks managed by local jurisdictions (County of Kern Parks and Recreation Department 2010).

While the project site is located in unincorporated Kern County, it is within the Sphere of Influence (SOI) of the City of Bakersfield (City) and is near park and recreational facilities owned and operated by the City. The City of Bakersfield Recreation and Parks Department manages 61 public parks, four public pools, 13 spray parks, two sports complexes, two skate parks, and one large amphitheater (City of Bakersfield Recreation and Parks Department 2023a). The nearest park owned and operated by the Department is Weston Park, located 2.54 miles northwest of the project site (City of Bakersfield Recreation and Parks Department 2023b).

Other public facilities include library facilities, post office facilities, and courthouses. The Kern County Library system is a countywide system providing all public library services in the County. The Kern County Library system includes seven Bakersfield locations and 15 countywide locations which serve over 850,000 residents within the County, including unincorporated areas (Kern County Library 2023). Additionally, there are currently 37 post offices that serve the County (United States Postal Service [USPS] 2023). Furthermore, there are currently 11 facilities serving the Superior Court of California in Kern County (Superior Court of California 2023).

4.15.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

California Fire Code

The 2022 California Fire Code establishes the minimum requirements consistent with nationally recognized good practices to safeguard the 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 sites and buildings, means of egress, hazardous materials storage and use, and temporary heating equipment and other ignition sources.

California Department of Forestry and Fire Protection

Under Title 14 of the California Code of Regulations, CAL FIRE has the primary responsibility for implementing wildfire planning and protection for SRAs. CAL FIRE develops regulations and issues fire-safe clearances for land within a fire district of the SRA. More than 31 million acres of California's privately owned wildlands are under CAL FIRE's jurisdiction.

CAL FIRE adopted FHSZ maps for the SRAs in November 2007. Fire hazard is a way to measure the physical fire behavior so that people can predict the damage a fire is likely to cause. Fire hazard measurement includes the speed at which a wildfire moves, the amount of heat the fire produces, and, most important, the burning fire brands that the fire sends ahead of the flaming front. The project site is not located within an SRA (CAL FIRE 2007).

In addition to wildland fires, CAL FIRE's planning efforts involve responding to other types of emergencies, including medical aid, hazardous material spills, swift-water rescues, search and rescue missions, civil disturbances, train wrecks, floods, and earthquakes. Through contracts with local government, CAL FIRE provides emergency services in 36 of California's 58 counties (CAL FIRE 2023).

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) that provides further information on planned land uses, policies, and implementation programs for the unincorporated portions of the metropolitan plan area. The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for mineral resources applicable to the proposed project are provided below:

Chapter VII: Safety/Public Safety

Goals

Goal 1 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 2 Require discretionary projects to assess impacts on police and fire services and facilities.

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 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 and the 2021 International Fire Code with some amendments. The purpose of the Kern County 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 and/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 therefore.

Kern County Fire Department 2021 Strategic Fire Plan

The KCFD 2021 Strategic Fire Plan, updated in April 2022, is the most current document that assesses the wildland fire situation throughout the SRA within the County. Similar to other plans, this document includes stakeholder contributions and priorities and identifies strategic targets for pre-fire solutions as defined by the people who live and work within the local fire problem. The plan provides for a comprehensive analysis of fire hazards, assets at risk, and level of services to systematically assess the existing levels of wildland protection services and identifies high-risk and high-value areas that are potential locations for costly and damaging wildfires. The plan gives an overview of KCFD Battalions and ranks these areas in terms of priority needs as well as identifies the areas of the SRA. According to the plan, 69 percent 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. The project site is located within Battalion 5 (Mount Pinos Communities), which is not within an FHSZ within the Mount Pinos Communities fire plan management area (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 (HFRA). 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 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 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).

2020 Kern County Multi-Jurisdictional Hazard Mitigation Plan

The 2020 update to the Kern County Multi-Jurisdictional Hazard Mitigation Plan (Kern MJHMP) was approved by the Federal Emergency Management Agency (FEMA) on April 9, 2021. The purpose of the Kern MJHMP is to guide County and city officials, special district managers, school district administrators, and water and wastewater district managers in protecting people and property within the County from the impacts of natural disasters and hazard events. In compliance with the Disaster Mitigation Act of 2000 (DMA 2000), the MJHMP must be updated every 5 years (KCFD Office of Emergency Services 2020).

4.15.4 Impacts and Mitigation Measures

Methodology

The methodology used to evaluate fire and law enforcement services impacts includes the following: (1) evaluation of existing fire and law enforcement 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 proposed project in addition to the existing population and building stock; and (3) determining whether the proposed project's contribution to the future service population would cause fire or law enforcement station(s) to operate beyond service capacity. The determination of the significance of the proposed project on fire protection and emergency medical and law enforcement services considers the level of services required by the proposed project and the ability of KCFD and KCSO to provide this level of service and maintain the regular level of service provided throughout the County, which in turn could 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. Using the aforementioned 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 CEQA Guidelines Appendix G, to determine whether a project would have a significant adverse effect on public services:

A project would have a significant impact on public services if it would:

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or the need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
 - i. Fire Protection
 - ii. Police Protection
 - iii. Schools
 - iv. Parks
 - v. 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, law enforcement protection and law enforcement services, schools, parks, or other public facilities.

Fire Protection

Construction

The on-site construction workforce for the proposed project would peak at up to approximately 100 individuals; however, the average daily workforce would vary depending upon the stage in construction. The presence of construction workers at the project site would be temporary through the duration of the approximately 16-month construction period. As determined by the County, the project site is not within an area of high or very high fire hazard (CAL FIRE 2007).

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 typically make up the majority of responses provided by the KCFD. 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.

Service demands as a result of personnel on-site would occur during construction of the project. 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 16 months, and would therefore not substantially increase the service demand for fire protection services in Kern County. Project impacts related to fire protection services would be less than significant.

Upon consultation with the KCFD, there are no current or future plans to construct a fire suppression road within the project boundary.

As required by **Mitigation Measures MM 4.9-13** (See **Section 4.9, Hazards and Hazardous Materials**) and **MM 4.15-1**, the project proponent would prepare and implement a Fire Safety Plan that contains notification procedures and emergency fire precautions consistent with the 2022 California Fire Code and Kern County Fire Code. The plan would be for use during the 16-month construction period, as well as during operations, and would include emergency fire precautions for vehicles and equipment as well as implement fire rules and trainings to equip temporary employees to handle fire threats. Implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1** would further reduce impacts related to fire protection services. Given the temporary nature of the project's construction phase and implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1**, impacts to fire protection services and facilities during project construction would be less than significant.

Operation

Once constructed, the proposed project would employ approximately 1,830 employees during the peak season and 1,464 employees during the non-peak season. The proposed project would not change existing demand for fire protection services because operation of the proposed project would not result in a substantial increase in employees or population. Therefore, the proposed project would not substantially increase the need for new KCFD staff or new facilities and impacts related to fire protection services would be less than significant.

Although unlikely, maintenance activities could introduce fire risks to the project site from maintenance vehicles. All maintenance activities would be required to comply with the Fire Safety Plan implemented per **Mitigation Measures MM 4.9-13** and **MM 4.15-1**, which would reduce fire risks on-site. 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. Implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1** would further reduce any potential operational impacts on fire protection services. Therefore, the proposed project would not result in the need for new or physically altered KCFD facilities and 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 nearest substation that would provide service to the project site is the Lamont substation located approximately 6.62 miles east of the project site, at 12022 Main Street, between the communities of Weedpatch and Lamont. The nearest CHP office to the

project site is the Central Division located at 9855 Compagnoni Street in the City of Bakersfield, approximately 1.83 miles north of the project site. Similar to fire protection services, the need for sheriff protection services would increase during construction of the proposed project.

The project site is located in a relatively remote location surrounded primarily by vacant agricultural uses. While land uses in the region consist largely of agriculture with a mix of row crops and grazing land, the proposed project may attract attention that would make project facilities susceptible to crime. Furthermore, construction activities may temporarily increase traffic volumes along I-5 and local roadways during the 16-month construction period. The added traffic associated with workers commuting to the project site, haul routes, deliveries, and other project-related traffic 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.

Additionally, chain-link security fencing would be installed around the site perimeter during construction, which would serve as a deterrent to any crime at the project site.

While project construction would increase the number of people on the project site, the increase would be temporary and negligible and, thus, would not substantially increase the service demand for law enforcement protection services in Kern County. Therefore, new or physically altered KCSO or CHP facilities would not be required to accommodate the limited increase in needs from the proposed project during construction and impacts to law enforcement services would be less than significant.

Operation

Project operation could attract vandals or present other security risks. As described above, while the project site is located in a rural area, project facilities could be susceptible to crime due to the nature of the proposed project as a warehouse and distribution facility. Controlled access gates and guard houses on-site would minimize the need for sheriff surveillance and response during project operation. Therefore, new or physically altered KCSO facilities would not be required to accommodate the proposed project. The additional volume of vehicles associated with workers commuting to the project site during daily operations would result in additional traffic in the project area (see **Section 4.17, *Transportation***, for more details); however, impacts to the CHP patrol are not anticipated. 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. Impacts would be less than significant.

Schools/Parks/Other Public Facilities

Construction

As stated above, the on-site construction workforce for the proposed project would peak at up to approximately 100 individuals; however, the average daily workforce would vary depending upon the stage in construction. The presence of construction workers at the project site would be temporary, through the duration of the approximately 16-month construction period. 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 proposed project. Therefore, the short-term increased employment of construction workers on the project site would not result in a notable increase in the residential population of the area surrounding the project site. Accordingly, there would not be a corresponding demand for or use of the local schools, parks, or public facilities. Therefore, project

construction workers would not increase demand for local schools, parks, or public facilities such that substantial physical deterioration of such facilities would occur, nor would project construction require the construction or expansion of recreational facilities which might have an adverse effect on the environment, nor result in substantial adverse physical impacts associated with the construction of new or physically altered facilities in order to maintain acceptable service ratios. During the construction phase, the County of Kern can anticipate fiscal benefits in the form of sales and tax revenue with the implementation of **Mitigation Measure MM 4.15-2**, which would require the project proponent coordinate with the County of Kern to determine how the use of sales and use taxes generated from construction of the proposed project can be maximized. Impacts during construction would be less than significant.

Operation

Operation of the project would employ approximately 1,830 employees during the peak season and approximately 1,464 employees during the non-peak season. Implementation of **Mitigation Measure MM 4.15-3** would require the project proponent make efforts to ensure approximately 50 percent of these employees would likely come from an existing local and/or regional labor force and would not likely relocate their households as a consequence of working on the proposed project. As indicated by the Superintendent of Schools, General Shafter Elementary and Ridgeview High School would be affected by the proposed project. General Shafter Elementary School is currently at capacity with 190 students, and Ridgeview High School is over capacity with 2,796 students, as its capacity is 2,052 students. The estimated Student Generation Rate for warehouse/distribution projects per 1,000 feet for GSSD is 0.0437. Furthermore, the payment of statutory fees of \$0.66 per square foot would reduce impacts associated with the proposed project. Therefore, staff required during operation would not increase demand for local schools, parks, or public facilities such that substantial physical deterioration of such facilities would occur, nor would project construction require the construction or expansion of recreational facilities which might have an adverse effect on the environment, nor result in substantial adverse physical impacts associated with the construction of new or physically altered facilities in order to maintain acceptable service ratios. Impacts during operation would be less than significant.

Mitigation Measures

Implement **Mitigation Measures MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**), and:

MM 4.15-1 Prior to the issuance of grading or building permits, the project proponent shall develop and implement a Fire Safety Plan for use during construction and operation. The project proponent will submit the Fire Safety 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 will contain notification procedures and emergency fire precautions for construction and operations phases of the proposed project.

MM 4.15-2 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.

MM 4.15-3 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 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**), and **MM 4.15-1** through **MM 4.15-3**, impacts would be less than significant.

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 study area is based on the service area for each of the fire, sheriff, and other governmental offices/facilities serving the project site. As discussed above, fire service impacts related to the project would be less than significant with mitigation. **Mitigation Measures MM 4.9-13** and **MM 4.15-1** require implementation of a Fire Safety Plan during project construction and operation that would include notification procedures and emergency fire precautions to reduce fire risks and the consequential need for fire protection services on-site. Other related cumulative projects may also be required to pay applicable fees and taxes to reduce significant impacts to fire or law enforcement protection services, as required by implementation of **Mitigation Measure MM 4.15-2**. With payment of the required mitigation fee as assessed by Kern County in coordination with the project proponent, any slight contribution the project would have on the need for additional fire or law enforcement protection services, facilities or personnel required would be appropriately funded. Lastly, implementation of **Mitigation Measure MM 4.15-3** would require the project proponent to make efforts to hire approximately 50 percent of its workforce from Kern County, further contributing to the economic vitality of the County. Similar to the project, all other past, present, and reasonably foreseeable future projects located within these fire and sheriff service areas were or would be required to pay this mitigation fee, if deemed appropriate by the Kern County Planning and Natural Resources Department. These projects would also be required to undergo environmental review, in compliance with the requirements of CEQA. Should potential impacts to public services be identified, appropriate mitigation would be prescribed that would reduce impacts to less than significant levels.

Therefore, because the proposed project would not create a significant impact on public services, and other related projects would also be expected to avoid or mitigate impacts on public services, this proposed project would comply with the goals, policies, and implementation measures of the Kern County General Plan and cumulatively significant impacts are anticipated to be less than significant. Therefore, the proposed

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 proposed project would not create a cumulatively considerable impact related to public services with the incorporation of **Mitigation Measures MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**) and **MM 4.15-1** through **MM 4.15-3** and would have a less than significant cumulative impact.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**) and **MM 4.15-1** through **MM 4.15-3** would be required.

Level of Significance after Mitigation

With the implementation of **Mitigation Measures MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**), and **MM 4.15-1** through **MM 4.15-3**, cumulative impacts would be less than significant.

Section 4.16 **Recreation**

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4.16.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) addresses potential impacts of the proposed project on parks and recreation opportunities in the project vicinity. This section also describes the environmental and regulatory settings and discusses mitigation measures to reduce impacts, where applicable.

Environmental Setting

The project site is located within the southern portion of the San Joaquin Valley, within Kern County (County).

State

The California State Parks Service 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 (California Department of Parks and Recreation [DPR] 2023b). The nearest State parkland to the project site is Tule Elk Reserve, located approximately 18.5 miles northwest of the site. Tomo-Kahni State Historic Park is located approximately 25.8 miles south of the project site.

Regional

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 15,673 acres of parkland for recreational purposes (Kern County Parks 2010).

Three national forests and the Wind Wolves Preserve are located in the vicinity of the project site. In addition, the Carrizo Plain National Monument, Buena Vista Aquatic Recreation Area, and Hart Park are located within approximately 50 miles of the project site.

As shown in the Kern County Parks and Recreation Department Master Plan, Buena Vista Aquatic Recreation Area is the closest regional park to the proposed project (located approximately 11.25 miles west of the project site). The park is located within unincorporated Kern County, approximately 5 miles south of the City of Bakersfield on the Ironbark Road south of Taft Highway. The 1,585-acre Kern River County Park offers a variety of activities, including two lakes, two sand volleyball courts, horseshoe pits, picnic areas, restrooms and concessions, and boat ramps.

The Metropolitan Recreation Center is located approximately 9.2 mile north of the project site within the City of Bakersfield. It includes Stramler Park, as well as numerous other cultural and recreational facilities; most notably the Kern County Museum and the Sam Lynn baseball park.

Other public facilities include city and County libraries. The County library system is divided into two districts: Greater Bakersfield Area and Outside Bakersfield Area. Greater Bakersfield Area has seven branch libraries, plus a bookmobile and the Olive Drive Fire Research Center; Outside Bakersfield Area has 13 branches, plus a bookmobile. The project site is not located in the vicinity of a post office or library.

Local

Kern County Parks and Recreation

The Kern County Parks and Recreation Department operates and maintains 40 neighborhood parks throughout the County, as well as several public buildings that are used for recreational purposes (Kern County Parks and Recreation Department 2010). The project site is located in the Greater Bakersfield area of Kern County, which is served by two regional parks, 13 local/neighborhood parks, two golf courses, and seven public buildings. The project site is not located near any recreational facilities or parks and does not contain any recreational facilities or parks. The neighborhood parks closest to the project site are Weston Park, located approximately 2.6 miles north of the project site, and Stonecreek Park, both located approximately 2.85 miles north of the project site.

North of the River Recreation and Park District

The North of the River Recreation and Park District (NOR) encompasses 215 square miles and has 24 park sites. The parks maintained by North of the River closest to the project site are Liberty Park, located approximately 10.23 miles north of the project site, and Mondavi Park, located approximately 9.5 miles south of the project site (NOR 2023).

City of Bakersfield Recreation and Parks Department

The City of Bakersfield's Recreation and Parks Department provides several amenities to residents and visitors, including (City of Bakersfield 2023):

- 62 public parks
- Four public pools and 10 spray parks
- Two sports complexes and two skate parks
- One large amphitheater
- Disc golf courses available in three parks: City in the Hills, Kern River Parkway and Silver Creek Park
- Several pickleball court locations

The park maintained by the City of Bakersfield located closest to the project site is the Kaiser Permanente Sports Village Soccer Complex located approximately 2.8 miles northwest of the project site.

Shafter Recreation and Park District

The Shafter Recreation and Park District operates and maintains 6 parks and recreational centers. Facilities include basketball gyms, baseball and softball diamonds, soccer fields, the Shafter Aquatic Center and the WC Walker Senior Center. The recreation centers located closest to the project site are Stringham Memorial

Park and Kirschenmann Park located both located approximately 22.75 miles away (Shafter Recreation and Park District 2023).

The Kern County Parks and Recreation Department operates and maintains 40 neighborhood parks throughout the County, as well as several public buildings that also are used for recreational purposes (Kern County Parks 2010). The nearest Kern County Parks and Recreation Department Facility to the project site is Greenfield Park, which is approximately 3 miles northeast of the project site. The 5-acre park includes a shade shelter with picnic tables, lighted basketball court, play equipment for toddlers and young children, a baseball field, storage building, and restrooms.

National Parks, Trails, and Monuments

National Parks

Several national parks are located in California's Central Valley which are accessible from Kern County. These include Sequoia National Park, Death Valley National Park, and Mojave National Preserve.

Cesar E. Chavez National Monument

The Cesar E. Chavez National Monument is located approximately 26 miles east of the project site in the town of Keene, California. The monument is managed by the National Park Service. Visitors are able to access the Visitor Center and the Memorial Garden, in which Cesar Chavez is buried, as well as the nearby Desert Garden. The park is described by the National Park Service (NPS) as "a work in progress" with more exhibits, programs, and services planned to be added in the coming years (NPS 2023a).

National Forests

Angeles National Forest

The Angeles National Forest is located approximately 36 miles south of the project site. The forest encompasses approximately 650,000 acres in Los Angeles, San Bernardino, and Ventura Counties. Approximately 3,636,000 visitors use Angeles National Forest annually. In general, of the total estimated annual site visits at Angeles National Forest, the majority are day-use site visits, estimated at 1,441,000 visits annually (United States Forest Service [USFS] 2015a). Public recreation resources located within the forest include the following:

- Wildlife and nature viewing, including bird-watching;
- Approximately 557 miles of hiking, mountain biking, and equestrian trails, including 73 miles of designated National Recreation Trails and 176 miles of the Pacific Crest Trail (maintained by the USFS);
- Approximately 59 campgrounds, plus additional primitive camping facilities (maintained by the USFS);
- Fishing for large- and small-mouth bass, crappie, bluegill, rainbow trout, and catfish at Pyramid Lake, located approximately 27 miles south of the project site along Interstate 5 (I-5), and the Castaic Lake Recreation Area, located approximately 37 miles southeast of the site along I-5;

- Seasonal hunting as permitted by the California Department of Fish and Wildlife (CDFW) and by County ordinance, California State law, or federal regulations by the USFS; and
- Off-highway vehicle (OHV) use, winter sports such as skiing and snowmobiling, water play, water skiing and boating, hang-gliding, rock climbing, and target shooting.

Los Padres National Forest

The Los Padres National Forest is located approximately 22 miles south of the project site. The forest extends approximately 220 miles, from Monterey County to the western edge of Los Angeles County, and encompasses nearly 2 million acres. The forest is divided into the Monterey, Santa Lucia, Santa Barbara, Ojai, and Mount Pinos Ranger Districts. The Mount Pinos Ranger District includes the portion of the Los Padres National Forest that is closest to the project site. The Mount Pinos Ranger District office is located approximately 29 miles south of the project site.

Sequoia National Forest

The Sequoia National Forest is located approximately 65 miles northwest of the project site. This national forest encompasses approximately 1.2 million acres. Sequoia National Forest has approximately 1.2 million visitors annually. Included within Sequoia National Forest is the Giant Sequoia National Monument (NPS 2021).

State

Antelope Valley California Poppy Reserve

The Antelope Valley California Poppy Reserve is located at Antelope Buttes, approximately 46 miles southeast of the project site. The 1,745-acre reserve is operated and maintained by the California Department of Parks and Recreation and is one of California's most consistent poppy-bearing lands. Other wildflowers that occur at the site include owl's clover, lupine, goldfield, cream cups, and coreopsis. The reserve is open year-round from sunrise to sunset and maintains 8 miles of nature and hiking trails as well as picnic areas. The Jane S. Pinheiro Interpretive Center is open from March 1 through Mother's Day, from 9:00 a.m.–5:00 p.m. on weekdays and 10:00 a.m.–4:00 p.m. on weekends. (California Department of Parks and Recreation 2023a). Annual use of the poppy reserve varies with the extent of rainfall and the resulting wildflower crop.

Fort Tejon State Historic Park

Fort Tejon State Historic Park is located in Grapevine Canyon approximately 2.5 miles from the project site. The 2,054-acre park is operated and maintained by the California Department of Parks and Recreation and includes the site of a U.S. Army fort established in 1854 and abandoned in 1864. Restored adobes, several 400-year-old valley oak trees, and interactive exhibits, including period recreations with live actors, occur within the park. Facilities include a visitor's center and museum, picnic areas, and group campsites (DPR 2023c). The park is generally not a destination location and not heavily used except for one day each month from May through September when Civil War-period reenactments occur. The park's only campground, a group facility, is also available.

Hungry Valley State Vehicular Recreation Area

The Hungry Valley State Vehicular Recreation Area (Hungry Valley) is located in Gorman, approximately 14 miles south of the project site. Hungry Valley is operated as a division of the California State Department of Parks and Recreation. The 19,000-acre facility contains 130 miles of OHV terrain, including motorcycle, all-terrain vehicle, dune buggy, and 4-wheel drive vehicle trails. The Quail Canyon Off-Road Event Area and Motocross Track is located in the eastern portion of the site. The closed-course track is used for competitive special events. Hungry Valley includes 200 campsites with shade ramadas, picnic tables, and fire rings (DPR 2015c). The facility is open year-round.

Other Parks

Wind Wolves Preserve

Wind Wolves Preserve is a 30 square mile non-profit preserve operated by The Wildlands Conservancy. The preserve is located approximately 18 miles southwest of the project site. The Wind Wolves Preserve ranges in elevation from 640 to 6,005 feet and includes unique landforms and ecologically important habitat. The preserve is open daily and offers outdoor education programs for schools as well as nature viewing, camping, hiking, mountain biking, and picnicking (The Wildlands Conservancy 2023).

Regulatory Setting

Federal

National Trails System Act of 1968

The National Trails System Act of 1968 (Public Law 90-543) was passed by Congress to create a series of trails “to promote the preservation of public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation.” The Act authorized National Scenic Trails as well as National Recreation Trails and connecting and side trails. National Scenic Trails are established to provide access to “spectacular natural beauty and to allow the pursuit of healthy outdoor recreation” and “extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass.” In addition, the 1968 Act also authorized creation of the Pacific Crest Trail (PCT) as a National Scenic Trail. As Congressionally established long-distance trails, each trail is administered by a federal agency, such as by the United States Department of Agriculture (USDA) Forest Service for the PCT.

Pacific Crest Trail Planning Criteria

The Pacific Crest National Scenic Trail Comprehensive Plan and the Pacific Crest Trail Guide for Location, Design, and Management (USFS 1982) provide guidelines and criteria for design and location of the PCT. Specifically, these guidelines state that the most desirable location will avoid unattractive roads, mining areas, power and telephone lines, commercial and industrial developments, fences, and other features incompatible with the natural condition of the trail and with its use for outdoor recreation. Where the trail encounters such developments, it should be located so as not to adversely affect, or conflict with, the

purpose of the development. Natural vegetation, topography, or natural plantings shall be used, where possible, to screen objectionable features from the view of the trail user.

State

California Subdivision Map Act

The California Subdivision Map Act (Map Act; California Government Code §§ 66410, *et seq.*) sets forth procedures regarding the subdivision of land within the State. The Map Act includes provisions that identify allowable methods under which local land use authorities may require recreational land dedications or an in lieu fee payment as a condition of subdivision approval. These provisions are commonly called the Quimby Act. Kern County's Quimby Act is found in Section 18.50.080, Park Land Dedication, of the Kern County Land Division Ordinance (Title 18, Division 1, Chapter 1 of the Kern County Ordinance Code). This provision provides for parkland dedication requirements of 2.5 acres per 1,000 residents within a proposed subdivision or the equivalent land cost if in lieu fees are paid. The Quimby Act also includes provisions relating to improved property dedication, common interest development recreational facility offsets, and other recreational land dedication requirements.

Local

Metropolitan Bakersfield General Plan

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 of 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 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 requirements.
- Policy 3** Require developers of new subdivisions to show and adhere to park locations (depicted on the Land Use Element). Park locations identified in master plans approved prior to adoption of this general plan are reflected in this plan. Variations may be allowed based on certain constraints. See Policy 6.

Policy 33 Monitor the parkland dedication ordinance with in lieu fee provisions.

Implementation Measures

Measure 9 Modify the subdivision and building ordinances to:

- a. Require that local parks be developed at a minimum rate of 2.5 acres per 1,000 population.
- b. Allow developers (within the City) neighborhood park credit as follows:
 - 1) Up to seven tenths (0.7) of one acre per 1,000 population credit for on-site recreation or park-like development in PUDs, open spaces, or publicly owned lands;
 - 2) Up to one and one-half (1.5) acre per 1,000 population credit for on-site recreation or park-like development located within land encumbered with electrical transmission line easements and incorporated as a functional design component of the residential development.
- c. Require developers to show park locations on development plans.
- d. Establish as a target mini-parks and neighborhood parks within the City of Bakersfield's jurisdiction be accessibly located within three-quarters of a mile of residents they are intended to serve.
- e. Require, where feasible, parks be developed with the following minimum acreage standards:
 - f. Mini-parks 2.5 usable acres.
 - g. Neighborhood Parks 10.0 usable acres.
 - h. Community Parks 20.0 usable acres.
 - i. Allow neighborhood park acreage requirements to be met by community parks when community parks are within or at boundaries of neighborhoods.
 - j. Neighborhood parks may range in size from 6 to 10 acres at the discretion of the Director of Recreation and Parks. Reason for a size less than 10 acres may include Master Park planning for a given area, land availability in areas with fragmented ownership or restrictions to a typical park service area.

Kern County Parks and Recreation Master Plan

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.
- f. 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.
 - g. 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.

Kern County Land Division Ordinance (Title 18 of the Ordinance Code of Kern County)

Section 18.50.080 Park Land Dedication

California Government Code Section 66477 of the California Subdivision Map Act (Quimby Act) identifies allowable methods under which local land use authorities may require recreational land dedications or in lieu fee payments as a condition of subdivision approval. The project site is located within the Kern County Parks and Recreation Department’s jurisdiction. Kern County has implemented the Quimby Act for the Kern County Parks and Recreation in Section 18.50.080 of the Kern County Land Division Ordinance, which requires that every land division include a dedication of parkland or payment of an equivalent in lieu fee (Land Division Ordinance 18.50.080.E.2). The County code provides that a project may receive a credit at the recommendation of the appropriate parks and recreation district against a parkland fee based on the value of private open space within the development that is usable for active recreational purposes, including private recreation and private open space.

Impacts and Mitigation Measures

This section of the EIR describes the impact analysis relating to recreation for the proposed project. It describes the methods used to determine the impacts of the proposed project and lists the thresholds used to conclude whether an impact would be significant. Measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion, where applicable.

Methodology

Recreational facilities and opportunities in the area were evaluated to determine whether they would be adversely affected by the proposed project. This evaluation included consideration of the overall number and area of parklands or other recreational facilities and proximity to the project site.

Thresholds of Significance

The Kern County California Environmental Quality Act (CEQA) Implementation Document and Kern County Environmental Checklist, as established in Appendix G of the State CEQA Guidelines, state that a project would have a significant impact on population and housing if it would:

- a. 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,
- b. 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: Result in Increased Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities Such That Substantial Physical Deterioration Would Occur or Be Accelerated

Construction

The nearest community recreational facility is located approximately 3 miles northeast of the project site at Greenfield Park. Construction of the proposed project is estimated to begin in July 2024 and to conclude in September in 2025, being completed in a single phase. The on-site workforce would consist of up to 100 individuals, with variations depending on the construction being completed at the time. It is assumed that the construction workforce would commute to the project site each day from local communities. Therefore, construction of the proposed project would not induce an increase in resident population that 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. As such, no construction impacts would occur.

Operation

The proposed project consists of a tilt-up warehouse facility and associated structures. The proposed project does not include any housing or residences and therefore would not directly induce a substantial population increase and associated increase in the need for or use of parks and recreational facilities. As described in **Section 4.14, *Population and Housing***, the proposed project would employ approximately 915 employees per shift (1,830 total) in peak season and 732 employees per shift (1,464 total) in non-peak season, primarily from the surrounding area, without the need for relocation. The County currently holds a target parkland-to-resident ratio of 2.5 acres per 1,000 residents for neighborhood parks and 4 acres per 1,000 residents for general recreation space. According to the Kern County Park and Recreation Master Plan, the County currently operates and maintains approximately 420.25 acres of neighborhood parks and 4,282 acres regional parks and general recreation space. While the County currently does currently have enough neighborhood parkland to match its unincorporated population of 303,525 or its total population of 907,476, the County nevertheless exceeds the 3,630 acres of general recreation space required to meet the target parkland ratio for general recreation space (CDF 2023c). Additionally, the County's lack of neighborhood parkland is a condition that predates the proposed project and would not be substantially impacted as a result of the proposed project's implementation. Therefore, the proposed project would not result in

increased use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration would occur or be accelerated. Operational impacts would be less than significant.

Mitigation Measures

No mitigation measures required.

Level of Significance after Mitigation

Impacts would be less than significant.

Impact 4.16-2: Include Recreational Facilities or Require Construction or Expansion of Recreational Facilities That Might Have an Adverse Physical Effect on the Environment

The proposed project consists of a concrete tilt-up warehouse facility and accompanying structures and does not include any housing or residences on-site. The County currently exceeds its target parkland-to-resident ratio of 2.5 acres per 1,000 residents for neighborhood parks and 4 acres per 1,000 residents for general recreation space. Additionally, the proposed project would be required to pay all applicable in lieu fees in accordance with Municipal Code Section 18.50.080.E.2. The proposed project would not include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment. No impact would occur.

Mitigation Measures

No mitigation measures required.

Level of Significance after Mitigation

No impact.

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 proposed project site. The project site and surrounding area is currently used for agricultural and industrial land uses, with few to no residences in the vicinity. As described above, the County does not currently meet its target park-to-resident ratio for its unincorporated population of 303,525 or its total population of 907,476. However, as the population growth rate of the County continues to decline in line with estimates described in Section 4.14, Population and Housing, it can be expected that the County will work towards meeting its target ratios. As shown in **Chapter 3, Project Description, Figure 3-9, Cumulative Projects** and **Table 3-5, Cumulative Projects List** of this Draft EIR, a number of County warehouse projects are proposed in the project vicinity. None of the projects listed in **Table 3-5** are residential projects that would

directly increase use of existing parks and recreational facilities. Additionally, as stated in **Section 4.14, Population and Housing**, these projects would be able to be staffed by the unemployed population currently residing within Kern County. As industrial projects, none would include or require the expansion of existing recreation facilities and would be subject to the payment of Park Fees in accordance with Municipal Code Section 18.50.080.E.2. Therefore, the proposed project would not make a cumulatively considerable contribution to impacts to parks and recreation. The proposed project in conjunction with the current and future projects listed in **Chapter 3, Project Description**, would have a less than significant impact cumulative impact on recreation.

Mitigation Measures

No mitigation measures required.

Level of Significance after Mitigation

Less than significant impact.

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Section 4.17
Transportation and Traffic

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4.17.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment, regulatory setting, and project impacts for transportation. It also describes mitigation measures that would reduce these impacts, where applicable. The information and analysis in this section is based, in part, on the Traffic Study Westside Industrial Project (KHA 2024b), provided in Appendix J of this Draft EIR.

4.17.2 Environmental Setting

The project site is located on approximately 93.74 acres at the southern end of the San Joaquin Valley in unincorporated Kern County (County) approximately 1.3 miles south of downtown Bakersfield (City). The Kern Island Canal and the unincorporated community of Alameda are located approximately 1 mile east of the project site. The project vicinity (Figure 3-2, Local Vicinity Map) is characterized by cultivated agricultural uses (row crops and orchards) as well as agricultural processing facilities. The project vicinity is characterized by cultivated agricultural uses (row crops and orchards) as well as agricultural processing facilities. The circulation system in the project vicinity is made up of a combination of State and County-jurisdictional facilities. The project site is located along Houghton Road, approximately 1 mile west of State Route (SR) 99, and 8.75 miles east of Interstate 5 (I-5). Major components of the system are discussed below and shown in **Chapter 3, Project Description**; **Figure 3-1, Regional Location**; and **Figure 3-2, Local Vicinity Map** of this Draft EIR.

Regional Setting

Major Highways

The project site is located near two major highways that would provide access to the general project vicinity during the construction and operation phases: I-5 and SR-99.

I-5 is a major north–south interstate freeway that travels the length of California, connecting the metropolitan regions of Southern and Northern California. In the project vicinity, I-5 is a four-lane freeway with an interchange at Bear Mountain Boulevard. North of the project site, I-5 travels northwest along the west side of the San Joaquin Valley toward Northern California. South of the project site, I-5 begins climbing into the Tehachapi Mountains toward Tejon Pass and into Southern California.

SR-99 is a four-lane, northbound and southbound divided freeway that provides interregional access from southern Kern County north through the Central Valley. SR-99 breaks off I-5 south of Bakersfield and north of Wheeler Ridge and continues north to Sacramento. There is one interchange within the project vicinity at Houghton Road. The uncontrolled freeway entrance ramps and stop-controlled exit ramps are located along Houghton Road.

According to the California Department of Transportation (Caltrans) California Scenic Highway Mapping System, there are no Designated State Scenic Highways within Kern County (see **Section 4.17.3, Transportation and Traffic—Regulatory Setting**) for more information on the State Scenic Highway Mapping System.

Non-motorized Transportation

Bicycling is considered an effective alternative mode of transportation that can help to improve air quality, reduce the number of vehicles traveling along existing roads and highways, and reduce energy consumption. There are 67 miles of existing bicycle facilities in the unincorporated portions of Kern County. There are no dedicated sidewalks or bicycle facilities in the immediate vicinity of the project site or along the surrounding roadways.

Other Transportation Facilities

Public Transportation

Public transportation in Kern County is provided by Kern Transit, which offers 17 fixed routes throughout the County and a dial-a-ride general public transportation service for residents in most communities. Route 130 provides fixed-route scheduled bus service between Bakersfield and Santa Clarita on I-5, with stops in Grapevine and near Frazier Park. Route 210 provides fixed-route scheduled bus service between I-5 and Frazier Park. There is no transit service in the project vicinity. The closest transit service consists of Kern Transit's Route 130 (Santa Clarita-Bakersfield) and Route 145 (Lamont-Bakersfield South). Both routes stop at the McKee Road Park & Ride lot, which is approximately 2.6 miles north of the project site on the east side of SR-99. Both routes start at the Golden Empire Transit (GET) Downtown Transit Center in downtown Bakersfield and make several stops before reaching the McKee Road stop. However, the McKee Road stop is too far to provide a practical transit service for the project site.

Railways

The closest railway to the project site is operated by the Burlington Northern Santa Fe (BNSF) Railroad, and the Bakersfield Terminal is located approximately 9 miles north of the project site.

Airport Facilities

Airport facilities located within a 20-mile radius of the project site include the following three private airport facilities:

- **Bakersfield Municipal Airport** is the nearest public, regional airport, located approximately 6.7 miles northeast of the project site. The Bakersfield Municipal Airport is a public use airport classified as a General Aviation Airport and is located approximately 3.5 miles south of the Bakersfield downtown area. The airport is approximately 200 acres in size and supports over 100 general aviation aircraft (City of Bakersfield 2023).
- **Meadows Field Airport** is owned by Kern County and serves more than 1.4 million people in the southern San Joaquin Valley. The airport is located approximately 13.5 miles north of the project site and is approximately 1,400 acres in size (Kern County 2023).

- **Shafter-Minter Field Airport** is a corporate aircraft airport with three active runways located approximately 19.9 miles north of the project site. The airport does not receive regularly scheduled commercial flights.

Local Setting

Existing Conditions

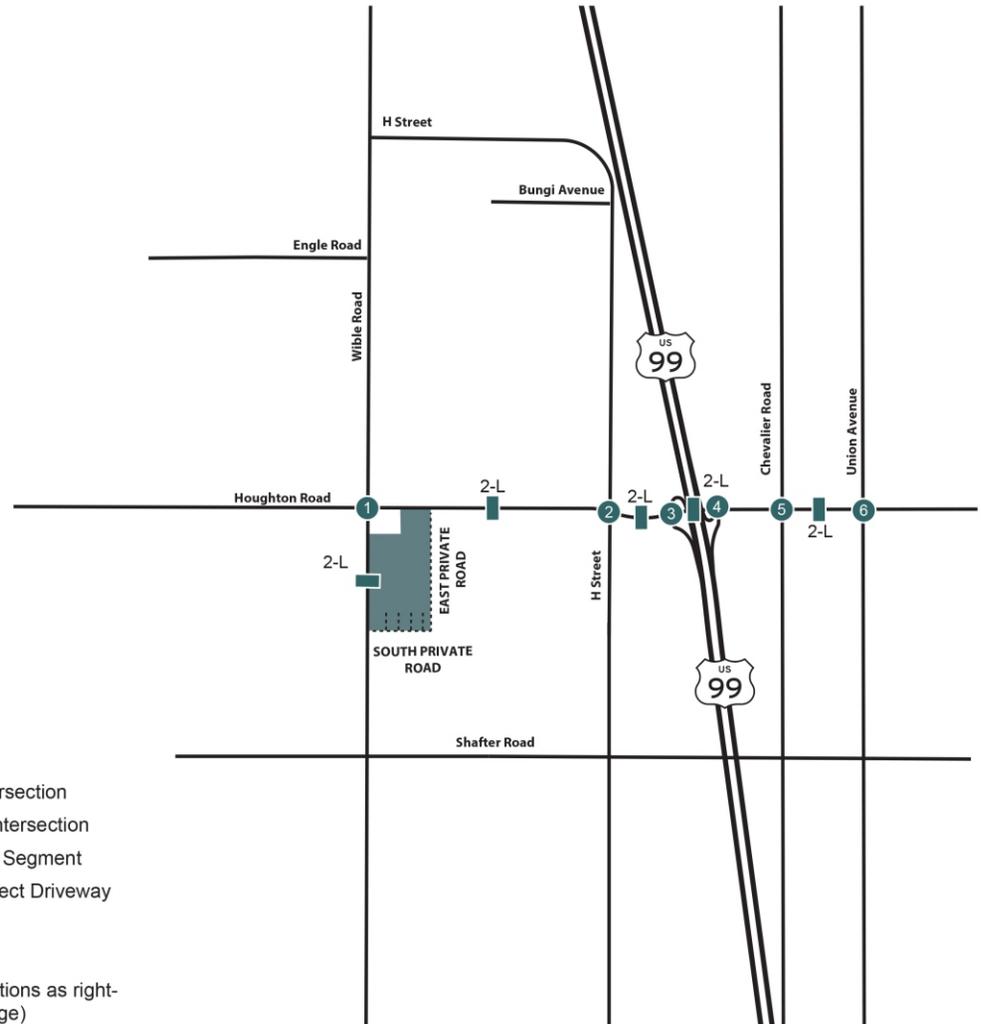
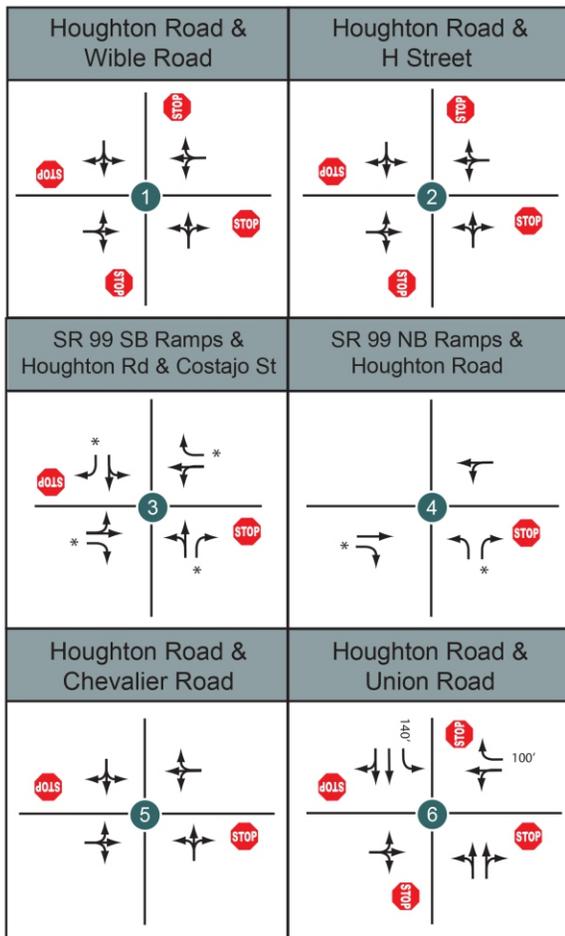
Local roadway access is provided directly to the site from Houghton Road and Wible Road. Houghton Road is an east–west undivided roadway providing access from rural areas in the west to SR-99 in the east within Kern County’s jurisdiction. Houghton Road will provide a future connection for the proposed project from I-5 to SR-99. Wible Road is a north–south roadway providing access from rural areas in the south to Brundage Lane in Bakersfield to the north. Within the project vicinity, both roads are two-lane roadways within Kern County’s jurisdiction and are classified as an arterial roadway per the Metropolitan Bakersfield General Plan. Additional roadways in the project vicinity include Union Avenue, Chevalier Road, and Costajo Road. Union Avenue is a major four-lane north–south arterial located just to the east of SR-99, running parallel to the freeway. It provides an important roadway connection between agricultural areas east of SR-99 with downtown Bakersfield. The intersection of Union Avenue and Houghton Road (Intersection No. 6) is currently unsignalized; however, a signal and additional improvements would be added under the proposed project. Chevalier Road is a north–south roadway within Kern County providing local access to the surrounding areas. It is a minor collector with one travel lane in each direction and connects Houghton Road to Shafter Road on the east side of SR-99. Costajo Road is a north–south two-lane roadway providing access from Houghton Road in the north to Black Mountain Boulevard in the south. It is classified as a minor collector roadway within Kern County. There are no signalized intersections currently in the project area, including all of the previously mentioned roads and their intersections with Houghton Road.

Proposed Improvements

Under the proposed project, all intersections would remain unsignalized with the exception of the intersection of Union Avenue and Houghton Road (Intersection No. 6), which would have a traffic signal and additional improvements added as a part of **Mitigation Measure MM 4.17-1**. Existing intersection/roadway configurations and traffic controls as of June 2023 are shown on **Figure 4.17-1: Existing Transportation Conditions**.

The project applicant proposes to construct a private internal road along the southern and eastern boundary of the project site that would intersect Houghton Road, to create one limited access (left-turn restricted) intersection, and Wible Road, to form one full-access intersections. A new private road would be constructed along the eastern and southern perimeter of the project site to connect Houghton Road and Wible Road. The road would be two lanes and designed to accommodate heavy trucks. The project applicant also proposes four internal driveways along the southern perimeter road: two truck access driveways and two passenger vehicle access driveways.

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LEGEND

- Project Site
- Signalized Study Intersection
- Unsignalized Study Intersection
- Study Area Roadway Segment
- Future Roadway/Project Driveway
- 2-L Two-Lane
- XXX' Turn Pocket Length
- * Flared approach functions as right-turn pocket (40' storage)

Source: Kimley-Horn Associates.

Figure 4.17-1
Existing Transportation Conditions

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Traffic Analysis

The proposed project would generate new vehicular trips that would increase traffic volumes on the surrounding street network. To assess changes in traffic conditions associated with the proposed project, the following intersections identified in **Table 4.17-1: Existing Conditions Study Intersections**, and roadway segments in **Table 4.17-2: Existing Conditions Roadway Segments LOS Summary**, were evaluated. The two new proposed driveways are included in the analysis. The traffic analysis utilizes Level of Service (LOS) methodologies for intersections published in the Highway Capacity Manual (HCM), 6th Edition. LOS is commonly used as a qualitative description of intersection operations. LOS is a measure of congestion from a driver's perspective. LOS ranges from A (best), which represents free flow conditions with minimal delay, to F (worst), which represents heavy delay and a facility that is operating at or near its functional capacity. Criteria for LOS deficiency in this traffic analysis are based on the 2009 Kern County General Plan. The County standard for the minimum LOS for intersections is LOS D or better. However, the proposed project is located within the Metropolitan Bakersfield General Plan Sphere of Influence (SOI), which sets a minimum standard of LOS C. Therefore, a project-related deficiency is assumed if the addition of project traffic would cause an intersection that is operating acceptably (LOS A, B, or C) to begin to operate unacceptably (LOS D, E, or F). For intersections already operating unacceptably (LOS D, E, or F), a project-related deficiency is assumed if the addition of project traffic increases the delay by more than 2.0 seconds at LOS D/E or more than 1.0 second at LOS F. If the addition of project traffic increases the delay by more than 2.0 seconds at LOS E or more than 1.0 second at LOS F, special consideration to identify mitigations measures to prevent and/or delay degradation of the existing LOS would be required.

TABLE 4.17-1: EXISTING CONDITIONS STUDY INTERSECTIONS

#	Study Intersection	Existing Traffic Controls	Peak-hour	LOS/Delay (seconds)	Jurisdiction
1	Houghton Road/Wible Road	All-Way Stop Control	AM PM	A (8.2) A (8.5)	Kern County
2	Houghton Road/H Street	All-Way Stop Control	AM PM	A (8.4) A (8.3)	Kern County
3	SR-99 Southbound Ramps/Costajo Road/Houghton Road	Two-Way Stop Control	AM PM	B (11.9) B (11.8)	Caltrans
4	SR-99 Northbound Ramps/Houghton Road	One-Way Stop Control	AM PM	B (10.3) B (11.2)	Caltrans
5	Chevalier Road/Houghton Road	Two-Way Stop Control	AM PM	B (11.6) B (10.6)	Kern County
6	Houghton Road/Union Avenue	All-Way Stop Control	AM PM	B (11.6) C (19.5)	Kern County

Source: Kimley-Horn 2024.

Additionally, the traffic impact analysis evaluates the following five roadway segments in the project vicinity where project traffic would contribute turning volumes.

TABLE 4.17-2: EXISTING CONDITIONS ROADWAY SEGMENTS LOS SUMMARY

#	Study Roadway Segment	Existing Functional Class	Jurisdiction	Average Daily Traffic	Volume to Capacity Ratio (V/C)	LOS C or Better?
1	Houghton Road, Wible Road to H Street	2-Lane Collector	Kern County	2,111	0.14	Yes
2	Houghton Road, H Street to SR-99 Southbound Ramps	2-Lane Collector	Kern County	2,872	0.19	Yes
3	Houghton Road, SR-99 Southbound Ramps to SR-99 Northbound Ramps	2-Lane Collector	Caltrans	4,064	0.27	Yes
4	Houghton Road, SR-99 Northbound Ramps to Union Avenue	2-Lane Collector	Kern County	3,891	0.26	Yes
5	Wible Road, Houghton Road to South Private Road	2-Lane Collector	Kern County	859	0.06	Yes

Source: Kimley-Horn 2024.

Roadway segment LOS is analyzed using calculated volume to capacity (V/C) ratios based on roadway capacities in the Metropolitan Bakersfield General Plan. The County standard for the minimum LOS for roadway segments is LOS C or better. Therefore, a project-related deficiency is assumed if the addition of project traffic would cause a roadway segment that is operating acceptably (LOS A, B, or C) to begin to operate unacceptably (LOS D, E, or F). For roadway segments already operating unacceptably (LOS D, E, or F), a project-related deficiency is assumed if the addition of project traffic would increase the V/C ratio more than 0.02 at LOS D/E or more than 0.01 at LOS F. If project-related deficiency is found, improvements would be required. All five segments show that the segments are currently operating at a LOS C or better.

Five scenarios were analyzed as part of the traffic analysis are described below.

1. **Existing (2023) Conditions**—Represents the traffic conditions of the existing street network when traffic data was collected in May 2023.
2. **Opening Year (2025) Conditions**—Represents the expected traffic conditions in 2025, the proposed project’s anticipated opening year. Traffic volumes were developed from growth rates calculated using the Kern Council of Governments (COG) travel demand model. No cumulative project improvements or volumes were assumed. This scenario does not include traffic generated by the proposed project.
3. **Opening Year (2025) plus Project Conditions**—Represents the traffic conditions for the Opening Year (2025) with the addition of the proposed project’s improvements and trip generation.

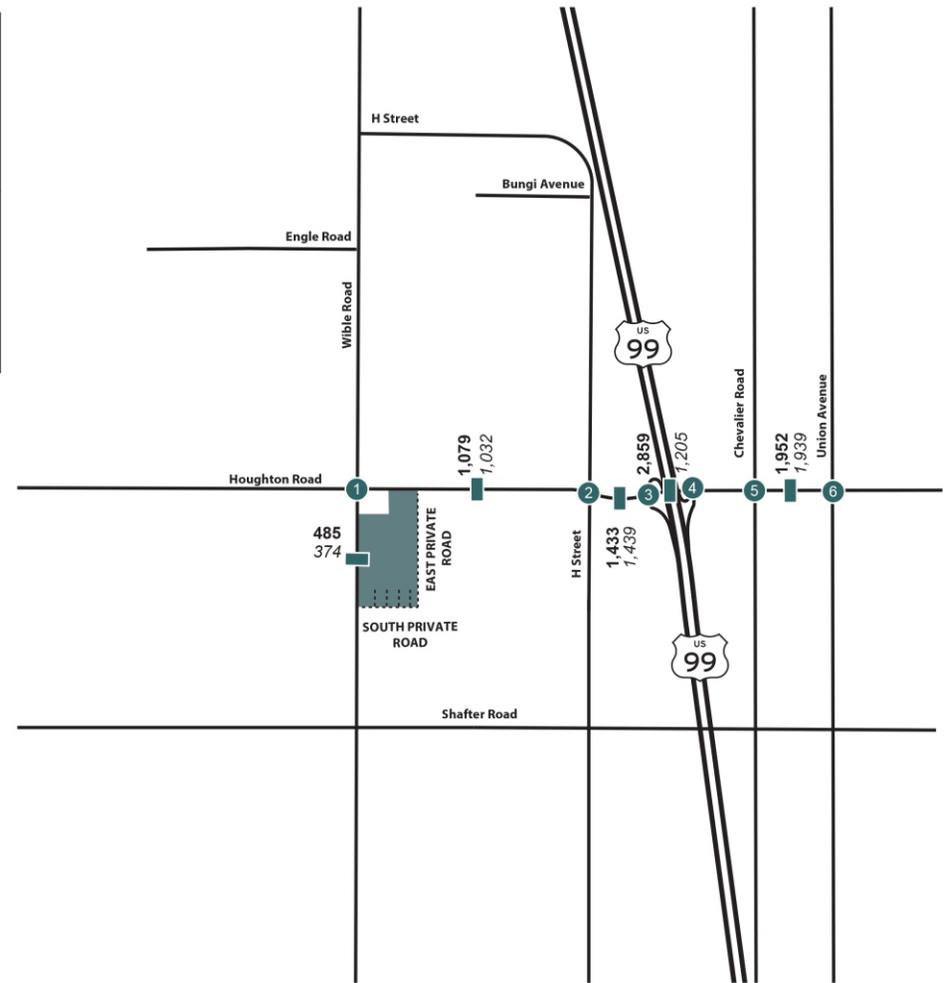
Comparison of this scenario to the Opening Year (2025) Conditions scenario determines whether deficiencies are a direct result of the proposed project.

4. **Horizon Year (2046) Conditions**—Represents the traffic conditions for the 2046 Horizon Year. Traffic forecasts were developed from the Kern COG travel demand model. No cumulative project improvements or volumes were assumed. This scenario does not include traffic generated by the proposed project.
5. **Horizon (2046) plus Project Conditions**—Represents the traffic conditions under Horizon Year (2046) Conditions with the addition of project generated trips. Comparison of this scenario to the Horizon Year (2046) plus Project Baseline Conditions scenario determines whether LOS deficiencies are a direct result of the proposed project with the addition of the proposed project's improvements and trip generation. Comparison of this scenario to the Horizon Year (2046) Conditions scenario determines whether future deficiencies are expected to result from the proposed project.

Intersection turning movement and roadway segment volumes were collected on May 2, 2023, at the six existing intersections on Houghton Road on Tuesday, May 2, 2023 for 14 hours, between 6:00 a.m. and 8:00 p.m. at four intersections identified for potential future signalization. Turning movements at the intersections of Houghton Road/H Street and Houghton Road/Chevalier Road were collected during normal commuter hours, between 7:00 and 9:00 a.m. and between 4:00 and 6:00 p.m. Existing (2023) peak-hour turning movement and Average Daily Traffic (ADT) volumes are shown on **Figure 4.17-2: Existing (2023) Peak-hour Turning Movement and ADT Volumes**

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1	11 / 19 19 / 13 11 / 12 Wible Road 4 / 17 67 / 81 4 / 1 Houghton Road	2	0 / 1 9 / 4 9 / 9 H Street 9 / 25 78 / 108 31 / 22 Houghton Road	3	58 / 55 18 / 12 130 / 86 SR 99 SB Off-Ramp 6 / 14 58 / 85 4 / 4 Houghton Road	4	66 / 91 67 / 107 201 / 194 88 / 97 SR 99 NB Off-Ramp 1 / 10 6 / 20 Houghton Road
5	7 / 14 89 / 96 12 / 0 11 / 4 15 / 64 3 / 7 Chevalier Road 126 / 157 3 / 6 Houghton Road	6	1 / 2 101 / 103 1 / 3 26 / 22 91 / 85 29 / 36 Union Avenue 24 / 43 91 / 138 17 / 16 Houghton Road	7	41 / 24 Wible Road 35 / 53 South Private Road	8	76 / 110 103 / 104 East Private Road Houghton Road



LEGEND

- Project Site
- ⊗ Signalized Study Intersection
- ⊗ Unsignalized Study Intersection
- Study Area Roadway Segment
- ⇌ X/Y AM/PM Peak Hour Turning Volumes
- X,XXX Average Daily Traffic Volumes (EB/NB)
- X,XXX Average Daily Traffic Volumes (WB/SB)
- Future Roadway/Project Driveway

Source: Kimley-Horn Associates.

Figure 4.17-2
Existing (2023) Peak Hour Turning Movement and ADT Volumes

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4.17.3 Regulatory Setting

Federal

Federal Aviation Administration

The Federal Aviation Administration (FAA) regulates aviation at regional, public, and private airports. The FAA regulates objects affecting navigable airspace. According to 49 Code of Federal Regulations Part 77.9, any person/organization who intends to sponsor any of the following construction or alterations must notify the Administrator of the FAA of:

- Any construction or alteration exceeding 200 feet above ground level;
- Any construction or alteration:
 - Within 20,000 feet of a public use or military airport which exceeds a 100:1 surface from any point on the runway where the longest airport runway exceeds 3,200 feet in actual length;
 - Within 10,000 feet of a public use or military airport which exceeds a 50:1 surface from any point on the runway where the longest airport runway is less than 3,200 feet in actual length; and
 - Within 5,000 feet of a public use heliport which exceeds a 25:1 surface;
- Any highway, railroad, or other traverse way whose prescribed adjusted height would exceed the above standards;
- When requested by the FAA; and
- Any construction or alteration located on a public use airport or heliport regardless of height or location.

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 49 United States Code Section 46301(a).

State

California Department of Transportation

The California Department of Transportation (Caltrans) has jurisdiction over State highways and sets maximum load limits for trucks and safety requirements for oversized vehicles that operate on highways. The Central Valley and western portions of Kern County (i.e., including the project site and surrounding area) are under the jurisdiction of Caltrans District 6. The Caltrans regulations below apply to potential transportation and traffic impacts of the proposed project:

- **California Vehicle Code Division 15, Chapters 1 through 5 (Size, Weight, and Load).** Includes regulations pertaining to licensing, size, weight, and load of vehicles operated on highways.
- **California Street and Highway Code, Sections 660-711, and 670-695.** 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 and provisions for the issuance of written permits, and requires permits for any load that exceeds Caltrans weight, length, or width standards for public roadways.

- **Project Development Procedures Manual, Chapter 27.** Access Control Modification. Requires Caltrans approval of proposed connections to a public road through submittal of a proposal to Caltrans (Caltrans 2016).

Local

Metropolitan Bakersfield General Plan

CEQA transportation analyses traditionally used LOS to identify traffic impacts based on traffic volumes and roadway capacity, using a series of letter designations ranging from A to F. In 2013, however, the Legislature passed legislation with the intention of ultimately removing LOS in most instances as a basis for environmental analysis under CEQA. Enacted as part of Senate Bill (SB) 743 (2013), Public Resources Code Section 21099, subdivision (b)(1), directed the Governor’s Office of Planning and Research (OPR) to prepare, develop, and transmit to the Secretary of the Natural Resources Agency for certification and adoption, proposed CEQA Guidelines addressing “criteria for determining the significance of transportation impacts of projects within transit priority areas. Those criteria shall promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses. In developing the criteria, [OPR] shall recommend potential metrics to measure transportation impacts that may include but are not limited to Vehicle Miles Traveled (VMT), VMT per capita, automobile trip generation rates, or automobile trips generated. The office may also establish criteria for models used to analyze transportation impacts to ensure the models are accurate, reliable, and consistent with the intent of this section.”

Subdivision (b)(2) of Section 21099 further provides that “[u]pon certification of the guidelines by the Secretary of the Natural Resources Agency pursuant to this section, automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment pursuant to [CEQA], except in locations specifically identified in the guidelines, if any.” However, SB 743 does not prevent an agency from continuing to analyze delay or LOS as part of other plans (i.e., a general plan), fee programs, or ongoing network monitoring, so long as these metrics do not constitute the sole basis for CEQA impacts.

The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for transportation that are applicable to the proposed project are provided below. The design LOS for the Bakersfield Planning SOI is LOS C.

Circulation Element

Streets

Goals

Goal 1 Minimize the impact of truck traffic on circulation, and on noise-sensitive land uses.

Goal 6 Provide a local street network that contributes to the quality and safety of residential neighborhoods and commercial districts.

Goal 7 Develop and maintain a circulation system that supports the land use plan shown in the General Plan.

Policies

Policy 2 Establish the following standards for the street system. (Standards included in General Plan, Page III-12)

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.

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 grade separations for intersections unable to meet minimum Level of Service standards.

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 18 Provide and maintain landscaping on both sides and in median of arterial streets within incorporated areas. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs; blank irrigation conduit only will be provided within median of arterial streets.

Policy 19 Provide and maintain landscaping on both sides of collector streets. In unincorporated areas, landscaping within road right-of-way may be allowed and shall be limited to low shrubs.

Policy 20 Prohibit parking on new arterials in incorporated areas. In unincorporated areas, prohibit parking when traffic studies warrant elimination. Allow parking on collectors and residential streets.

Policy 22 Design transportation improvements to minimize noise impacts on adjacent uses.

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 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.
- Policy 36** Prevent streets and intersections from degrading below Level of Service “C” where possible due to physical constraints (as defined in a Level of Service Standard) or when the existing Level of Service is below “C” prevent where possible further degradation due to new development or expansion of existing development with a three part mitigation program: Adjacent right-of-way dedication, access improvements and/or an area-wide impact fee. The area-wide impact fee would be used where the physical change for mitigation are not possible due to existing development and/or the mitigation measure is part of a larger project, such as freeways, which will be built at a later date.
- 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 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.

Transit

Goals

- Goal 4** Reduce traffic congestion and parking requirements and improve air quality through improved transportation services.

Policies

- Goal 8** Encourage businesses and government to use flexible and staggered work hours so that travel demand is spread more evenly throughout the day.

Bikeways

Policies

- Policy 5** Consider bicycle safety when implementing improvements for automobile traffic operations.
- Policy 7** Provide bicycle parking facilities at activities centers such as shopping centers, employment sites, and public buildings.
- Policy 9** Require new subdivisions to provide bike lanes on collector and arterial streets in accordance with the Bikeway Master Plan
- Policy 10** Encourage new subdivisions to provide internal bike paths where feasible and where natural features make bike paths desirable.
- Policy 11** Construct bike lands in conjunction with all street improvement projects that coincide with the Bikeway Master Plan.

Policy 12 Where feasible, stripe and sign existing streets to include bike lanes as shown on the Bikeway Master Plan.

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 site plans in accordance with the adopted parking standards.

Chapter V—Conservation/Air Quality

Goals

Goal 3 Reduce the amount of vehicular emissions in the planning area.

Policies

Policy 11 Improve the capacity of the existing road system through improved signalization, more right-turn lanes and traffic control systems.

Policy 15 Promote the use of bicycles by providing attractive bicycle paths and requiring provision of storage facilities in commercial and industrial projects.

Policy 16 Cooperate with Golden Empire Transit and Kern Regional Transit to provide a comprehensive mass transit system for Bakersfield; require large-scale new development to provide related improvements, such as bus stop shelters and turnouts.

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.

Kern County General Plan

Circulation Element

2.3.10: Congestion Management Programs

State law requires that urbanized counties prepare an annual Congestion Management Program (CMP). City and County eligibility for new gas tax subventions is contingent upon their participation in the CMP. To qualify for funding provided through the State Transportation Improvement Program (STIP) or the Federal Transportation Improvement Program (FTIP), the regional transportation agency must keep current a Regional Transportation Program (RTP) that contains the CMP. Also, the CMP offers local jurisdictions

the opportunity to find cooperative solutions to the multi-jurisdictional problems of air pollution and traffic congestion.

The CMP has links with air quality requirements. The California Clean Air Act requires that cities and counties implement Transportation Control Measures (TCMs) to attain, and maintain, the State air quality standard.

Goals

- Goal 1** To satisfy the trip reduction and travel demand requirements of the Kern Council of Government's Congestion Management Program.
- Goal 2** To coordinate congestion management and air quality requirements and avoid multiple and conflicting requirements.

Policies

- Policy 1** Pursuant to California Government Code 65089(a), Kern County has designated Kern Council of Governments as the County's Congestion Management Agency.
- Policy 2** The Congestion Management Agency is responsible for developing, adopting, and annually updating a Congestion Management Plan. The Plan is to be developed in consultation with, and with the cooperation of, the regional transportation agency (also Kern Council of Governments), regional transportation providers, local governments, Caltrans, and the air pollution control district.

Implementation Measures

- Measure A** Kern County Council of Governments should request the proper consultation from County of Kern to develop and update the proper Congestion Management Program.
- Measure B** The elements within the Kern Congestion Management Program are to be implemented by each incorporated city and the County of Kern. Specifically, the land use analysis program, including the preparation and adoption of deficiency plans is required. Additionally, the adoption of trip reduction and travel demand strategies are required in the Congestion Management Program.

Kern Council of Governments 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. The Kern COG refers to its congestion management activities as the 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 designated State highways.

Regional Transportation Plan

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), which is required by California's Sustainable Communities and Climate Protection Act, of Senate Bill (SB) 375. The California Air Resources Board (ARB) set Kern County greenhouse gas (GHG) emissions reductions from passenger vehicles and light-duty trucks by 9 percent per capita by 2020 and 15 percent 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 need and transportation planning. Kern COG engaged in the RHNA 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 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 our 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 Airport Land Use Compatibility Plan (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 site is not located within a designated Airport Land Use Compatibility zone. The nearest public airport to the project site is the Bakersfield Municipal Airport, located approximately 5.9 miles northeast of the project site. The closest private airport, Creekside Airport, is located in the City of Arvin, approximately 7.3 miles to the southeast of the project site. Impacts and Mitigation Measures

Methodology

The proposed project's potential impacts to transportation have been evaluated using the Traffic Study Westside Industrial Project (Kimley-Horn 2024b) attached as Appendix J of this Draft EIR and a variety of published resources.

Through the approval of SB 743 in September 2013, required changes to CEQA were passed directing the OPR to develop alternative metrics to the use of vehicular LOS for evaluating transportation impacts of projects. OPR recommended that VMT replace LOS as the primary measure of transportation impacts. Guidance for these changes was outlined in a technical advisory for evaluating transportation impacts in CEQA in December 2018 (OPR Technical Advisory). The OPR Technical Advisory included transportation impact thresholds to adhere to the updated CEQA requirements and helped with answering important implementation questions about the methodology, thresholds, and mitigation approaches for VMT impact analysis. Lead agencies have the discretion to use or not use vehicle LOS as the sole means of identifying an environmental impact. However, LOS may be analyzed as part of an evaluation of a proposed project's consistency with other plans (i.e., a general plan), fee programs, or ongoing network monitoring. Therefore, impact significance has been determined based on consistency with existing programs and policies, including meeting required LOS thresholds set by the Metropolitan Bakersfield General Plan, the County (maintain LOS C or better), and other agencies.

This traffic impacts analysis is first addressed in **Impact 4.17-1** through planning-level LOS analysis for daily/peak-hour traffic on the nearest major roadways and intersections surrounding the project site. The impact assessment is based on estimated traffic volumes associated with construction activities (workers and trucks/deliveries) and operations activities. Other impact assessments include qualitative assessments based on available information. In **Impact 4.17-2**, changes in VMT to the project vicinity are addressed. Since Kern County has not adopted a VMT methodology or significance criteria, the VMT analysis for the proposed project was conducted following guidance outlined by OPR Technical Advisory on Evaluation Transportation Impacts in CEQA.

Trip Generation, Distribution, and Assignment

The proposed project would operate 24 hours a day, 365 days per year. Two unsignalized access driveways are proposed, one along Houghton Road and one along Wible Road, connected by an internal drive aisle along the eastern and southern perimeters of the project site. Off this private drive aisle, Driveway 1 and Driveway 4 would provide truck access to the project site, while Driveway 2 and Driveway 3 would provide passenger vehicle access.

Construction

For the purposes of this environmental analysis, the following construction schedule was assumed. Grading for the proposed project would begin in July 2024. Construction would be completed in one phase, beginning in September 2024 and concluding in November 2025. Construction-related vehicle trips would consist of construction workers traveling to and from the project site and delivery of construction equipment and materials. Delivery of construction equipment and materials would likely include oversized vehicle trips that would travel at a slower speed than surrounding, existing traffic, which may affect the traffic moving in that direction. Therefore, construction-related vehicle trips could decrease the existing LOS on

the roadways and intersections near the project site. However, these trips would be temporary and limited to the construction phase of the proposed project. Therefore, impacts would be less than significant.

Operation

During operation of the proposed project, employees would work in two shifts: a day shift from 9:00 a.m. to 6:00 p.m. and an evening shift from 6:30 p.m. to 3:30 a.m. Because of the number of employees expected, the day/night shifts would be split in half with staggered start/end times 30-minutes apart. Most line-haul trucks serving the facility would arrive and depart between 7:00 p.m. and 1:00 a.m. Given these shift schedules, the peak-hours for the proposed project fall just outside of the standard peak-hours for traffic on adjacent streets. However, the traffic analysis proposes to use the peak-hour trip generation for the site as it is a more conservative assumption than the peak-hour for adjacent streets.

A Passenger Car Equivalent (PCE) of 3.0 was also applied to truck trips for comparison purposes to account for additional intersection delay and turn pocket queue caused by these vehicles. The resulting totals of 4,341 daily PCE trips, with 573 PCE trips (455 inbound/118 outbound) during the AM peak-hour and 767 PCE trips (300 inbound/467 outbound) during the PM peak-hour, are analyzed. **Table 4.17-3: Project Trip Generation–Operation** contains a summary of the proposed project’s trip generation.

TABLE 4.17-3: PROJECT TRIP GENERATION–OPERATION

Vehicle Type	Daily Trips	AM Peak-hour Trips			PM Peak-hour Trips		
		Inbound	Outbound	Total	Inbound	Outbound	Total
Passenger Car	3,907	443	104	547	294	461	755
Truck (PCE)	434	18	21	39	9	9	18
Total Project Trips (PCE)	4,341	455	118	573	300	467	767

Source: Kimley-Horn 2024.

Trip Distribution/Assignment

The proposed project’s employee passenger vehicle trip distribution was developed using select zone model runs from the Kern COG travel demand model. The Kern COG is based on a variety of data that is compiled to forecast future transportation demands that are currently known and planned for. The following is the resulting general traffic distribution assumed for the LOS analysis:

- 5 percent to/from the west along Houghton Road (west of Wible Road)
- 15 percent to/from the north along Wible Road (north of Houghton Road)
- 5 percent to/from the south along Wible Road (south of South Private Road)
- 45 percent to/from the north along SR-99, using Houghton Road interchange
- 10 percent to/from the south along SR-99, using Houghton Road interchange

- 7 percent to/from the north along Union Avenue and north Houghton Road
- 10 percent to/from the east along Houghton Road (east of Union Avenue)
- 3 percent to/from the south along Union Avenue (south of Houghton Road)

Since delivery trucks would not originate locally and would travel to/from the site via designated truck routes from the SR-99 freeway, these vehicles will be distributed to the study area as follows:

- 60 percent to/from the north along SR-99, using the Houghton Road interchange
- 40 percent to/from the south along SR-99, using the Houghton Road interchange

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 traffic.

A project could have a significant adverse effect on transportation if it would:

- a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, as follows: Metropolitan Bakersfield General Plan LOS C;
- b. Conflict or be inconsistent with CEQA Guidelines Section 15064.3(b);
- c. Substantially increases hazards due to a geometric design feature (such as sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
- d. Result in inadequate emergency access.

Project Impacts

Impact 4.17-1: The proposed project would conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities, as follows: Metropolitan Bakersfield General Plan LOS C.

The proposed operations at the project site consists of the development of a warehouse and distribution facility. Operations would continue 24-hours a day, 7 days a week. The proposed project would include the construction of a private access roads adjacent to the south and east of the site that would intersect Houghton Road and Wible Road to form full-access intersections.

Four access driveways are proposed on the private access road along the south portion of the proposed site. The following summarizes the proposed access improvements:

East Private Road Access

- Construct a 50-foot-wide roadway along the eastern limits of the proposed project site leading to a limited access (outbound left-turn restricted) intersection along Houghton Road approximately 1,650 feet east of the Wible Road/Houghton Road intersection;
- Design intersection to accommodate inbound/outbound truck turning paths; and
- Provide stop control for northbound approach.

South Private Road Access

- Construct a 50-foot-wide roadway along the southern limits of the proposed project site, intersecting Wible Road leading to a full-access intersection along the southern limits of the proposed project site, approximately 2,650 feet south of Wible Road/Houghton Road;
- Design intersection to accommodate inbound/outbound truck turning paths; and
- Provide stop control for westbound approach.

Driveway for Outbound Trucks to South Private Access Road

- Construct driveway approximately 250 feet east of Wible Road, along the South Private Road;
- Provide separate left-turn and right-turn lanes for the southbound approach;
- Stripe two-way left-turn lane along South Private Road;
- Provide a stop control at the southbound approach; and
- Restrict inbound vehicles with signage.

Passenger Vehicle Driveway 1 along South Private Access Road

- Construct full-access driveway approximately 375 feet east of Wible Road, along the South Private Road;
- Provide separate left-turn and right-turn lanes for the southbound approach; o Stripe two-way left-turn lane along South Private Road; and
- Provide a stop control at the southbound approach.

Passenger Vehicle Driveway 2 along South Private Access Road

- Construct full-access driveway approximately 925 feet east of Wible Road, along the South Private Road;
- Provide separate left-turn and right-turn lanes for the southbound approach;
- Stripe two-way left-turn lane along South Private Road; and
- Provide a stop control at the southbound approach.

Inbound Truck Driveway along South Private Access Road

- Construct three-way truck entry drive approximately 1,150 feet east of Wible Road along the South Private Road;
- Provide two inbound travel lanes;
- Stripe two-way left-turn lane along South Private Road; and
- Restrict outbound vehicles with signage.

Additionally, with the construction of the proposed project, the southern half of Houghton Road would be widened along the property frontage to provide one-half width improvements for a County standard Type "A" Arterial Highway with a half right-of-way width of 55 feet and a half-improved width of 35 feet. The cross section would provide a single westbound travel lane and two travel lanes in the eastbound direction along the frontage that would become a drop right-turn lane at the East Private Road. The south 7 feet of

the raised median would be constructed with the north half striped as a median. These improvements would be interim conditions, where half of the roadway is built to its ultimate roadway cross section and expected to be in place until future development of the adjacent parcels occurs.

The eastern portion of Wible Road would be widened along the property frontage to provide one-half width improvements for a County standard Type “A” Arterial Highway with a half right-of-way width of 55 feet and a half-improved width of 35 feet. The cross section would provide a single southbound travel lane and two travel lanes in the northbound direction along the frontage. For the purposes of intersection lane alignments and shift tapers, the proposed improvements would extend north of Houghton Road and south of the South Private Road. These improvements would be interim conditions, where half of the roadway is built to its ultimate roadway cross section and expected to be in place until future development of the adjacent parcels occurs.

According to the Traffic Analysis for the proposed project, prepared by Kimley-Horn, the proposed project is expected to generate 4,341 daily PCE trips, with 573 PCE trips (455 inbound/118 outbound) during the AM peak-hour and 767 PCE trips (300 inbound/467 outbound) during the PM peak-hour.

LOS Analysis

LOS is commonly used as a qualitative description of intersection operations. LOS is based on the capacity of the intersection, the signal timing, and the volume of traffic (turning movements). The County and Caltrans use the HCM intersection analysis methodology to analyze the operation of signalized and unsignalized study intersections.

The HCM analysis methodology describes the operation of a roadway segment or intersection using a range from LOS A (free flow conditions) to LOS F (severely congested conditions). The Caltrans target for peak-hour operations is LOS C or better. The target for the Bakersfield Planning SOI, as established by the Metropolitan Bakersfield General Plan is LOS C or better. LOS E has been established as the minimum system-wide LOS traffic standard in the Kern COG Congestion Management Plan. In addition to existing conditions, LOS was analyzed for Opening Year (2025) Conditions, Opening Year (2025) Plus Project Conditions, Horizon Year (2046) Conditions, and Horizon Project (2046) Plus Project Conditions.

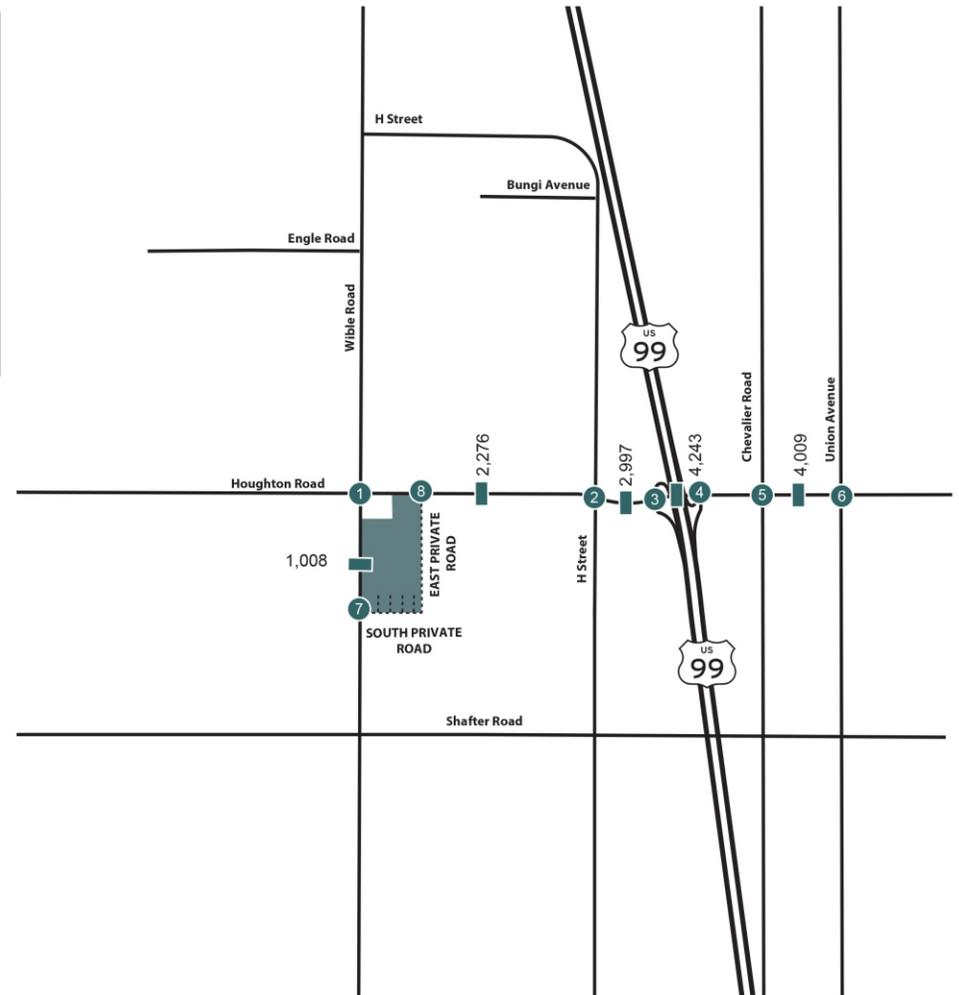
Opening Year (2025) Conditions

Opening Year Conditions represent the expected conditions in 2026, when the proposed project is expected to be complete, without the addition of the proposed project’s improvements and traffic. The lane geometry and traffic control for Opening Year (2026) Conditions are assumed to be the same as Existing (2023) Conditions since no improvements are expected within the study area before the proposed project is expected to be operational. To account for “background” growth within the study area, the Opening Year (2025) Conditions traffic volumes were developed by calculating the total traffic growth from the Kern COG model between the base year (2022) and the Horizon Year (2046) and applying an four-year growth increment to account for growth from the base year to 2025. This growth increment was calculated for each intersection approach and applied to Existing (2023) Conditions turning movements using the existing turning movement proportions. **Figure 4.17-3: Opening Year (2025) Peak-hour Turning Movement and ADT Volumes**, shows the Opening Year (2026) Peak-Hour Turning Movement and ADT Volumes. **Table 4.17-4: Opening Year (2025) Conditions Intersection LOS Summary** provides the intersection LOS analysis results under Opening Year (2025) Conditions, showing all intersections are expected to operate at LOS B or better during the AM and PM commuter peak-hours.

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LEGEND

- Project Site
- Signalized Study Intersection
- Unsignalized Study Intersection
- Study Area Roadway Segment
- \circ X / Y AM/PM Peak Hour Turning Volumes
- X,XXX Average Daily Traffic Volumes
- Future Roadway/Project Driveway



Source: Kimley-Horn Associates.

Figure 4.17-3
Opening Year (2025) Peak Hour Turning Movement and ADT Volumes

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TABLE 4.17-4: OPENING YEAR (2025) CONDITIONS INTERSECTION LOS SUMMARY

Study Intersection	Existing Traffic Controls	Peak-hour	LOS/Delay (seconds)	Jurisdiction
Houghton Road/Wible Road	All-Way Stop Control	AM PM	A (8.3) A (8.6)	Kern County
Houghton Road/H Street	All-Way Stop Control	AM PM	A (8.5) A (8.5)	Kern County
SR-99 Southbound Ramps/Costajo Road/Houghton Road	Two-Way Stop Control	AM PM	B (12.2) B (12.1)	Caltrans
SR-99 Northbound Ramps/Houghton Road	Two-Way Stop Control	AM PM	B (10.7) B (11.3)	Caltrans
Chevalier Road/Houghton Road	Two-Way Stop Control	AM PM	B (11.9) B (10.9)	Kern County
Houghton Road/Union Avenue	All-Way Stop Control	AM PM	A (12.0) C (20.9)	Kern County
Wible Road/South Private Road	Proposed Project Improvement	DNE DNE	DNE DNE	Kern County
Houghton Road/East Private Road	Proposed Project Improvement	DNE DNE	DNE DNE	Kern County
Outbound Truck Driveway/South Private Road	One-Way Stop	DNE DNE	DNE DNE	Kern County
Passenger Car Driveway 1/South Private Road	One-Way Stop	DNE DNE	DNE DNE	Kern County
Passenger Car Driveway 2/South Private Road	One-Way Stop	DNE DNE	DNE DNE	Kern County
Passenger Car Driveway 3/South Private Road	One-Way Stop	DNE DNE	DNE DNE	Kern County
Inbound Truck Driveway/South Private Road	None	DNE DNE	DNE DNE	Kern County

Notes:

Bold values indicate intersections operating at unacceptable LOS. **Bold and shaded** values indicate project significant impact.

ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

a. Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a one- or two-way stop-controlled intersection, delay refers to the worst movement. At intersections 3 and 4, delay refers to the worst approach to account for slip right-turn lanes.

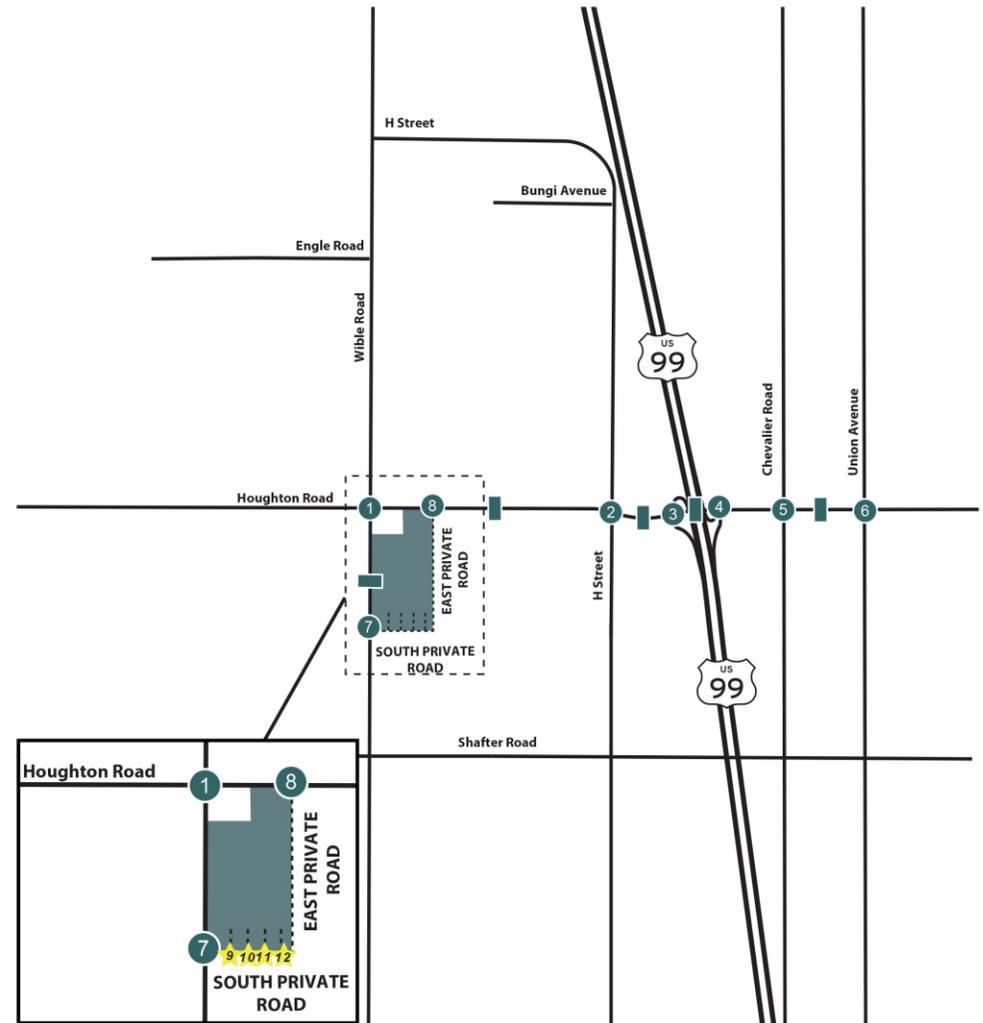
b. LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11.0

Source: Kimley-Horn 2024.

Figure 4.17-4: Opening Year (2025) Plus Project Transportation Conditions and **Figure 4.17-5: Opening Year (2025) Plus Project Peak-hour Turning Movement and ADT Volumes** show the transportation conditions within the study area with construction of the proposed project and Opening Year (2025) Plus Project Turning Movement and ADT Volumes.

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Houghton Road & Wible Road	Houghton Road & H Street	SR 99 SB Ramps & Houghton Rd & Costajo St	SR 99 NB Ramps & Houghton Road
Houghton Road & Chevalier Road	Houghton Road & Union Avenue	Wible Road & South Private Road	Houghton Road & East Private Road
South Private Road & Outbound HV Driveway	South Private Road & Passenger Car Driveway	South Private Road & Passenger Car Driveway	South Private Road & Inbound HV Driveway



LEGEND

- Project Site
- ⊗ Signalized Study Intersection
- ⊗ Unsignalized Study Intersection
- Study Area Roadway Segment
- ⋯ Future Roadway/Project Driveway
- ★ Project Driveway
- XXX' Turn Pocket Length
- * Flared approach functions as right-turn pocket (40' storage)
- TWLTL Two-Way Left-Turn Lane

Source: Kimley-Horn Associates.

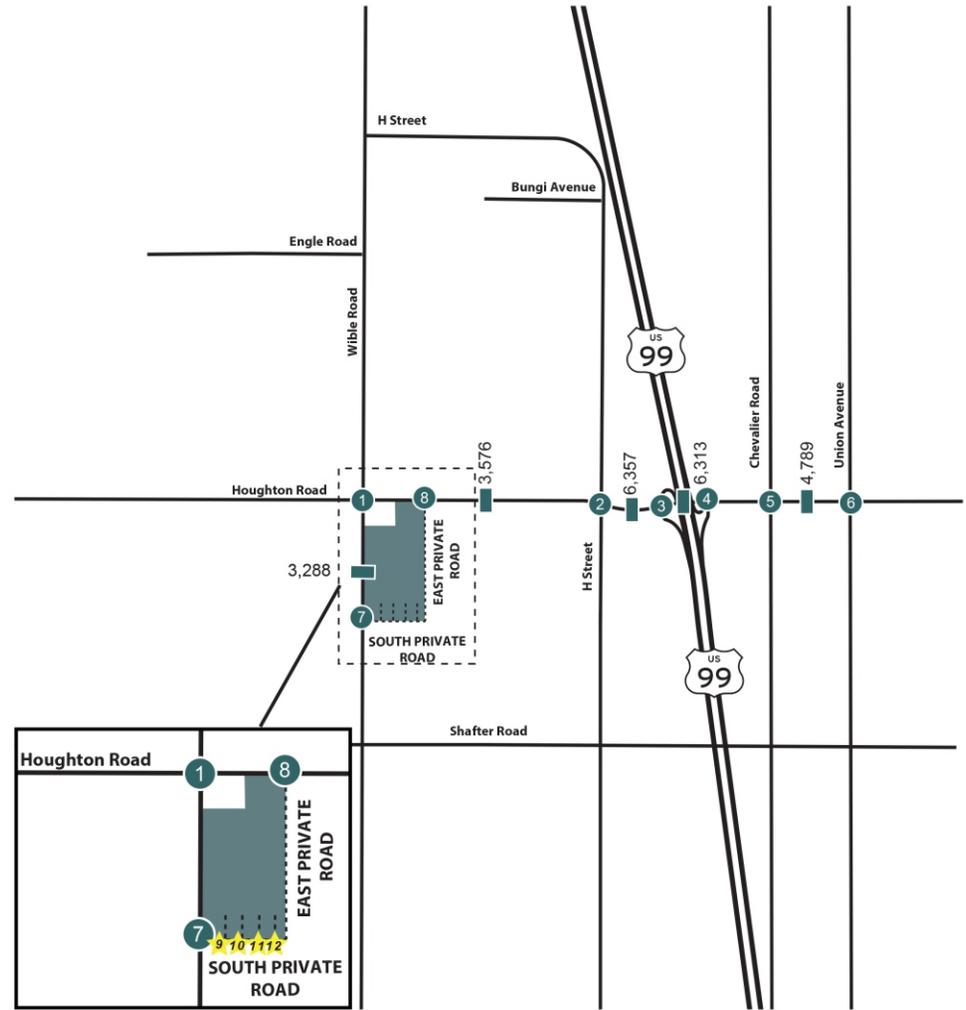
Figure 4.17-4
Opening Year (2025) Plus Project Transportation Conditions

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5	216 / 218 5 / 7 Houghton Road	6	58 / 44 95 / 90 32 / 39 Union Avenue 26 / 45 137 / 170 18 / 17 Houghton Road	7	45 / 28 221 / 147 Wibie Road 60 / 234 South Private Road	8	212 / 200 213 / 139 Houghton Road
	5 / 0 217 / 250 14 / 13 Chevalier Road 11 / 9 6 / 6 Houghton Road		26 / 80 178 / 187 19 / 30 20 / 27 59 / 348 22 / 87 South Private Road		38 / 57 22 / 15 East Private Road 147 / 250 55 / 211 Houghton Road		
9	11 / 5 11 / 5 Driveway 1 (PB HW) 53 / 252 South Private Road	10	34 / 60 15 / 69 Driveway 2 (PV) 66 / 44 19 / 92 South Private Road	11	19 / 82 29 / 137 Driveway 3 (PV) 131 / 87 66 / 44 South Private Road	12	16 / 8 197 / 131 South Private Road
	242 / 161 153 / 102 99 / 63 South Private Road		87 / 58 27 / 74 South Private Road		2 / 1 55 / 211 South Private Road		

LEGEND

- Project Site
- ⊗ Signalized Study Intersection
- ⊙ Unsignalized Study Intersection
- ▬ Study Area Roadway Segment
- ⊙ X / Y AM/PM Peak Hour Turning Volumes
- X,XXX Average Daily Traffic Volumes
- Future Roadway/Project Driveway
- ★ Project Driveway



Source: Kimley-Horn Associates.

Figure 4.17-5
Opening Year (2025) Plus Project Peak Hour Turning Movement and ADT Volumes

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Table 4.17-5: Opening Year (2025) Conditions Roadway Segments LOS Summary presents the roadway segment analysis under Opening Year (2025) Conditions, showing all segments are expected to operate at LOS C or better.

TABLE 4.17-5: OPENING YEAR (2025) CONDITIONS ROADWAY SEGMENTS LOS SUMMARY

Study Roadway Segment	Existing Functional Class	Jurisdiction	Average Daily Traffic	Volume to Capacity Ratio (V/C)	LOS C or Better?
Houghton Road, Wible Road to H Street	2-Lane Collector	Kern County	2,276	0.15	Yes
Houghton Road, H Street to SR-99 Southbound Ramps	2-Lane Collector	Kern County	2,997	0.20	Yes
Houghton Road, SR-99 Southbound Ramps to SR-99 Northbound Ramps	2-Lane Collector	Caltrans	4,243	0.28	Yes
Houghton Road, SR-99 Northbound Ramps to Union Avenue	2-Lane Collector	Kern County	4,009	0.27	Yes
Wible Road, Houghton Road to South Private Road	2-Lane Collector	Kern County	1,008	0.07	Yes

Source: Kimley-Horn 2024.

Opening Year (2025) Plus Project Conditions

Opening Year (2025) Plus Project Conditions represent the expected conditions in 2025, when the proposed project is expected to be complete with the addition of the proposed improvements and traffic. The Opening Year (2025) Plus Project Conditions are the same as Existing (2023) Conditions with the addition of the proposed project’s frontage improvements. Opening Year (2025) Plus Project traffic volumes were developed by adding the proposed project’s trip assignments to the Opening Year (2025) baseline intersection turning movements and roadway segment volumes. **Table 4.17-6, Opening Year (2025) Conditions Plus Project Intersection LOS Summary**, compares the intersection LOS analysis results under Opening Year (2025) Baseline and Plus Project Conditions, showing all intersections are expected to operate at LOS C or better during the commuter peak periods with the addition of project traffic, with the exception of the following intersection:

- Houghton Road/Union Avenue–LOS D in the PM peak-hour.

TABLE 4.17-6: OPENING YEAR (2025) CONDITIONS PLUS PROJECT INTERSECTION LOS SUMMARY

Study Intersection	Jurisdiction	Existing Traffic Controls	Peak-hour	Opening Year (2025)	Opening Year (2025) Plus Project	á (Deficient)
				LOS (Delay)	LOS (Delay)	
Houghton Road/Wible Road	County	All-Way Stop Control	AM	A (8.3)	A (10.0)	1.7 (No)
			PM	A (8.6)	B (10.7)	2.1 (No)
Houghton Road/H Street	County	All-Way Stop Control	AM	A (8.5)	B (13.7)	5.2 (No)
			PM	A (8.5)	C (15.5)	7.0 (No)
SR-99 Southbound Ramps/Costajo Road/Houghton Road	Caltrans	Two-Way Stop Control	AM	B (12.2)	C (16.3)	4.1 (No)
			PM	B (12.1)	C (23.8)	11.7 (No)
SR-99 Northbound Ramps/Houghton Road	Caltrans	Two-Way Stop Control	AM	B (10.7)	B (14.3)	3.6 (No)
			PM	B (11.3)	C (16.1)	4.8 (No)
Chevalier Road/Houghton Road	County	Two-Way Stop Control	AM	B (11.9)	B 12.5	0.6 (No)
			PM	B (10.9)	B 12.7	1.8 (No)
Houghton Road/Union Avenue	County	All-Way Stop	AM	B (12.0)	B (12.4)	0.4 (No)
			PM	C (20.9)	D (26.9)	6.0 (Yes)
Wible Road/South Private Road	County	Two-Way Stop	AM	DNE	B (14.8)	– (No)
			PM	DNE	B (12.6)	– (No)
Houghton Road/East Private Road	County	One-Way Stop	AM	DNE	B (9.4)	– (No)
			PM	DNE	B (11.7)	– (No)
Outbound Truck Driveway/South Private Road	County	One-Way Stop	AM	DNE	B (10.3)	– (No)
			PM	DNE	B (10.8)	– (No)
Passenger Car Driveway 1/ South Private Road	County	One-Way Stop	AM	DNE	B (11.8)	– (No)
			PM	DNE	B (11.7)	– (No)
Passenger Car Driveway 2/ South Private Road	County	One-Way Stop	AM	DNE	B (10.9)	– (No)
			PM	DNE	B (11.6)	– (No)
Inbound Truck Driveway/South Private Road	County	None	AM	DNE	A	– (No)
			PM	DNE	A	– (No)

Source: Kimley-Horn. 2024.

Table 4.17-7: Opening Year (2025) Conditions Compared with Opening Year (2026) Plus Project Conditions Roadway Segments LOS Summary compares the roadway segment LOS analysis results under Opening Year (2025) Conditions and Opening Year (2025) Plus Project Conditions, showing all segments are expected to continue to operate at LOS C or better with the addition of project traffic.

TABLE 4.17-7: OPENING YEAR (2025) CONDITIONS COMPARED WITH OPENING YEAR (2026) PLUS PROJECT CONDITIONS ROADWAY SEGMENTS LOS SUMMARY

Study Roadway Segment	Existing Functional Class	Opening Year (2025) Baseline			Opening Year (2025) plus Project			Change in V/C
		Average Daily Traffic	Volume to Capacity Ratio (V/C)	LOS C or Better?	Average Daily Traffic	Volume to Capacity Ratio (V/C)	LOS C or Better?	
Houghton Road, Wible Road to H Street	2-Lane Collector	2,276	0.15	Yes	3,576	0.24	Yes	0.09
Houghton Road, H Street to SR-99 Southbound Ramps	2-Lane Collector	2,997	0.20	Yes	6,357	0.42	Yes	0.22
Houghton Road, SR-99 Southbound Ramps to SR-99 Northbound Ramps	2-Lane Collector	4,243	0.28	Yes	6,313	0.42	Yes	0.14
Houghton Road, SR-99 Northbound Ramps to Union Avenue	2-Lane Collector	4,009	0.27	Yes	4,789	0.32	Yes	0.05
Wible Road, Houghton Road to South Private Road	2-Lane Collector	1,008	0.07	Yes	3,288	0.22	Yes	0.15

Source: Kimley-Horn 2024.

Additionally, peak-hour traffic signals were evaluated at the three deficient intersections identified above under the Opening Year (2025) Plus Project Conditions, using the California Manual on Uniform Traffic Control Devices (CA MUTCD) (Warrant 3 – Peak-hour). The results of this analysis are evaluated below.

- Houghton Road/Union Avenue: Warrant 3, Peak-hour is met for a single hour during PM peak-hours.

Horizon Year (2046) Conditions

Horizon Year (2046) Conditions represent the expected background conditions in 2046, without the addition of the proposed project’s improvements and traffic. The lane geometry and traffic control for

Horizon Year (2046) Conditions scenario are assumed to be the same as Existing (2023) and Opening Year (2025) Conditions, since no improvements are expected within the study area before the Horizon Year. To account for “background” growth within the study area, the Horizon Year (2046) traffic volumes were developed by calculating the total traffic growth from the Kern COG model between the base year (2022) and the Horizon Year (2046). The 2046 model scenario accounts for all planned projects and ambient growth in Countywide population and employment. The entire growth increment was applied to the Existing Conditions turning movements to develop the Horizon Year (2046) volume forecasts. **Table 4.17-8: Horizon Year (2046) Conditions Intersection LOS** Summary displays the intersection LOS analysis results under Horizon Year (2046) Conditions, showing all intersections are expected to operate at LOS C or better during the AM and PM commuter peak-hours. **Figure 4.17-6: Horizon Year (2046) Peak-hour Turning Movement and ADT Volumes** Peak Turning Movement and ADT Volumes.

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TABLE 4.17-8: HORIZON YEAR (2046) CONDITIONS INTERSECTION LOS SUMMARY

Study Intersection	Existing Traffic Controls	Peak-hour	LOS/Delay (seconds)	Jurisdiction
Houghton Road/Wible Road	All-Way Stop Control	AM	A (8.3)	Kern County
		PM	A (8.7)	
Houghton Road/H Street	All-Way Stop Control	AM	A (8.4)	Kern County
		PM	A (8.6)	
SR-99 Southbound Ramps/Costajo Road/Houghton Road	Two-Way Stop Control	AM	B (12.3)	Caltrans
		PM	B (12.6)	
Northbound Ramps/Houghton Road	Two-Way Stop Control	AM	B (10.7)	Caltrans
		PM	B (11.4)	
Chevalier Road/Houghton Road	Two-Way Stop Control	AM	B (11.7)	Kern County
		PM	B (11.3)	
Houghton Road/Union Avenue	All-Way Stop Control	AM	B (11.3)	Kern County
		PM	C (18.2)	
Wible Road/South Private Road	Proposed Project Improvement	AM	DNE	Kern County
		PM	DNE	
Houghton Road/East Private Road	Proposed Project Improvement	AM	DNE	Kern County
		PM	DNE	
Outbound Truck Driveway/South Private Road	One-Way Stop	AM	DNE	Kern County
		PM	DNE	
Passenger Car Driveway 1/South Private Road	One-Way Stop	AM	DNE	Kern County
		PM	DNE	
Passenger Car Driveway 2/South Private Road	One-Way Stop	AM	DNE	Kern County
		PM	DNE	
Inbound Truck Driveway/South Private Road	None	AM	DNE	Kern County
		PM	DNE	

Source: Kimley-Horn 2024.

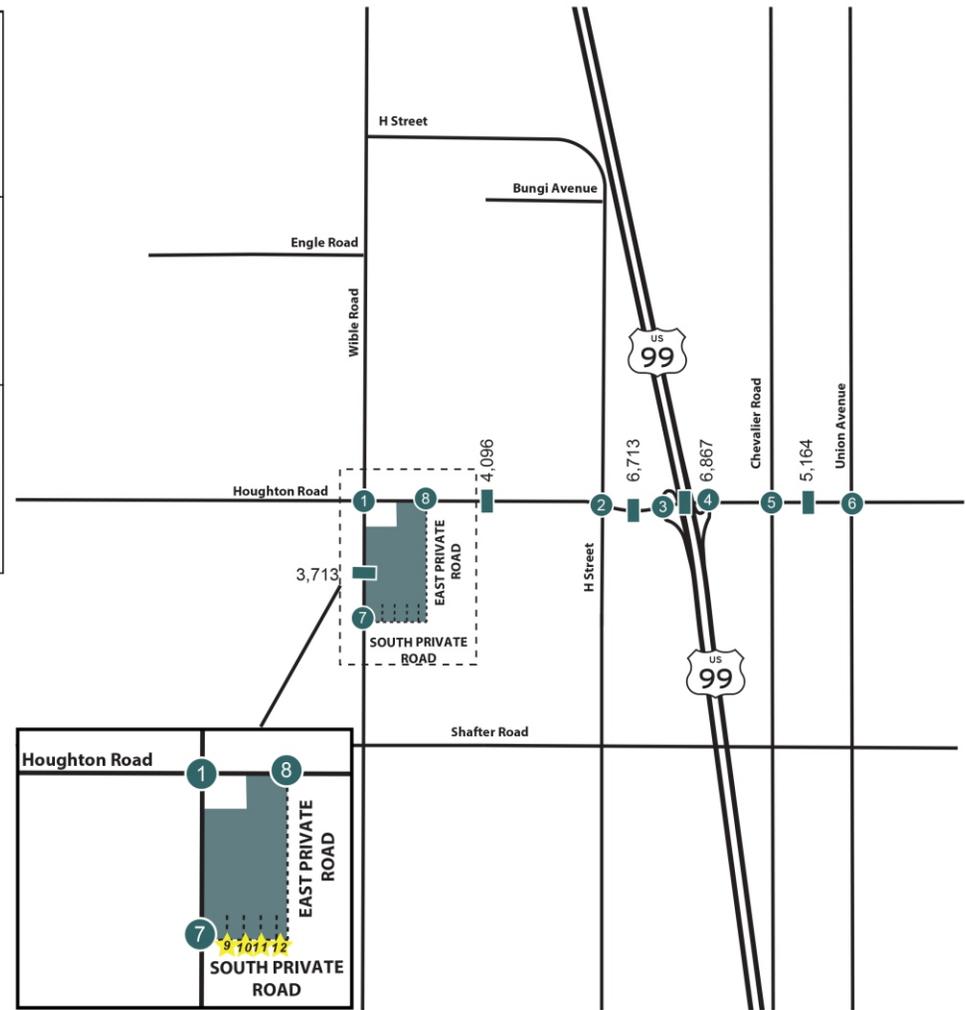
Figure 4.17-7: *Horizon Year (2046) Plus Project Peak-hour Turning Movement and ADT Volumes* presents the Horizon Year (2046) Plus Project Peak-hour Turning Movement and ADT Volumes.

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1	20 / 20 96 / 54 20 / 20 Wible Road	10 / 20 80 / 100 143 / 98 Houghton Road	0 / 10 20 / 10 20 / 20 H Street	10 / 30 436 / 347 40 / 30 Houghton Road	278 / 196 20 / 20 140 / 100 SR 99 NB Off-Ramp	10 / 20 218 / 201 10 / 10 Houghton Road	167 / 158 80 / 120 Houghton Road
	10 / 20 100 / 110 42 / 15	25 / 33 45 / 149 50 / 152	10 / 10 214 / 473 10 / 10	10 / 10 20 / 10 30 / 30	28 / 60 216 / 473 10 / 10	10 / 20 40 / 50	229 / 302 157 / 321 SR 99 NB Off-Ramp
5		227 / 228 10 / 10 Houghton Road	61 / 50 110 / 110 40 / 50 Union Avenue	30 / 50 144 / 179 20 / 20	60 / 40 221 / 147 Wible Road	60 / 234 5 / 23 South Private Road	223 / 208 213 / 139 Houghton Road
	10 / 0 229 / 262 20 / 20	20 / 20 10 / 10 Chevalier Road	27 / 82 190 / 196 23 / 34	33 / 29 70 / 380 30 / 100	50 / 70 22 / 15	160 / 262 East Private Road	55 / 211 South Private Road
9	11 / 5 11 / 5 Driveway 1 (OB HW)	53 / 252 South Private Road	34 / 160 15 / 69 Driveway 2 (PV)	86 / 44 19 / 92	19 / 92 29 / 137 Driveway 3 (PV)	131 / 87 66 / 44 South Private Road	16 / 8 197 / 131 South Private Road
	242 / 161	153 / 102 99 / 63	87 / 58 27 / 74	2 / 1 55 / 211			

LEGEND

- Project Site
- ⊗ Signalized Study Intersection
- ⊗ Unsignalized Study Intersection
- Study Area Roadway Segment
- ⇌ X / Y AM/PM Peak Hour Turning Volumes
- X,XXX Average Daily Traffic Volumes
- Future Roadway/Project Driveway
- ★ Project Driveway



Source: Kimley-Horn Associates.

Figure 4.17-7
Horizon Year (2046) Plus Project Peak Hour Turning Movement and ADT Volumes

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Table 4.17-9: Horizon Year (2046) Conditions Roadway Segments LOS Summary presents the roadway segment analysis under Horizon Year (2046) Conditions, showing all segments are expected to operate at LOS C or better.

TABLE 4.17-9: HORIZON YEAR (2046) CONDITIONS ROADWAY SEGMENTS LOS SUMMARY

Study Roadway Segment	Existing Functional Class	Jurisdiction	Average Daily Traffic	Volume to Capacity Ratio (V/C)	LOS C or Better?
Houghton Road, Wible Road to H Street	2-Lane Collector	Kern County	2,796	0.19	Yes
Houghton Road, H Street to SR-99 Southbound Ramps	2-Lane Collector	Kern County	3,353	0.22	Yes
Houghton Road, SR-99 Southbound Ramps to SR-99 Northbound Ramps	2-Lane Collector	Caltrans	4,797	0.32	Yes
Houghton Road, SR-99 Northbound Ramps to Union Avenue	2-Lane Collector	Kern County	4,384	0.29	Yes
Wible Road, Houghton Road to South Private Road	2-Lane Collector	Kern County	1,433	0.10	Yes

Source: Kimley-Horn 2024.

Horizon Year (2046) Plus Project Conditions

Horizon Year (2046) Plus Project Conditions represent the expected conditions in 2046 with the addition of the proposed project’s improvements and traffic. The Horizon Year (2046) Plus Project Conditions are the same as Opening Year (2026) Plus Project Conditions. Horizon Year (2046) Plus Project traffic volumes were developed by adding the proposed project’s trip assignments to the Horizon Year (2046) baseline intersection turning movements and roadway segment volumes. **Table 4.17-10, Horizon Year (206) Conditions and Horizon Year (2046) Plus Project Conditions Intersection LOS Summary**, compares the intersection LOS analysis results under Horizon Year (2046) Conditions and the Horizon Year (2046) Plus Project Conditions, showing all intersections are expected to operate at LOS C or better during the commuter peak periods with the addition of project traffic, with the exception of the following intersection:

- Houghton Road/Union Avenue–LOS D in the PM peak-hour.

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TABLE 4.17-10: HORIZON YEAR (2046) CONDITIONS AND HORIZON YEAR (2046) PLUS PROJECT CONDITIONS INTERSECTION LOS SUMMARY

#	Study Intersection	Jurisdiction	Existing Traffic Controls	Peak-hour	Cumulative Year (2046)	Cumulative Year (2046) Plus Project	Delay	Deficient?
					LOS (Delay)	LOS (Delay)		
1	Houghton Road/Wible Road	County	All-Way Stop Control	AM	A (8.3)	B (10.4)	2.1	No
				PM	A (8.7)	B (11.0)	2.3	No
2	Houghton Road/H Street	County	All-Way Stop Control	AM	A (8.4)	B (14.7)	6.3	No
				PM	A (8.6)	C (17.4)	8.8	No
3	SR-99 Southbound Ramps/Costajo Road/Houghton Road	Caltrans	Two-Way Stop Control	AM	B (12.3)	C (16.1)	3.8	No
				PM	B (12.6)	C (24.5)	11.9	No
4	SR-99 Northbound Ramps/Houghton Road	Caltrans	One-Way Stop Control	AM	B (10.7)	B (14.2)	3.5	No
				PM	B (11.4)	C (15.8)	4.4	No
5	Chevalier Road/Houghton Road	County	Two-Way Stop Control	AM	B (11.7)	B (12.8)	1.1	No
				PM	B (11.3)	B (13.0)	1.7	No
6	Houghton Road/Union Avenue	County	All-Way Stop Control	AM	B (11.3)	B (12.6)	1.3	No
				PM	C (18.2)	D (28.0)	9.8	Yes
7	Wible Road/South Private Road	County	Two-Way Stop Control	AM	DNE	C (15.3)	–	No
				PM	DNE	B (12.9)	–	No
8	Houghton Road/East Private Road	County	One-Way Stop	AM	DNE	A (9.4)	–	No
				PM	DNE	B (11.8)	–	No
9	Outbound Truck Driveway/South Private Road	County	One-Way Stop	AM	DNE	B (10.3)	–	No
				PM	DNE	B (10.8)	–	No

#	Study Intersection	Jurisdiction	Existing Traffic Controls	Peak-hour	Cumulative	Cumulative Year	Delay	Deficient?
					Year (2046)	(2046) Plus Project		
10	Passenger Car Driveway 1/South Private Road	County	One-Way Stop	AM	DNE	B (11.8)	–	No
				PM	DNE	B (11.7)	–	No
11	Passenger Car Driveway 2/South Private Road	County	One-Way Stop	AM	DNE	B (10.9)	–	No
				PM	DNE	B (11.6)	–	No
12	Inbound Truck Driveway/South Private Road	County	None	AM	DNE	A (NONE)	–	No
				PM	DNE	A (NONE)	–	No

Notes:

Bold values indicate intersections operating at unacceptable LOS. **Bold and shaded** values indicate project significant impact. ECL = Exceeds Calculable Limit. Reported when delay exceeds 180 seconds.

- a. Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a one- or two-way stop-controlled intersection, delay refers to the worst movement. At intersections 3 and 4, delay refers to the worst approach to account for slip right-turn lanes.
- b. Delay refers to the average control delay for the entire intersection, measured in seconds per vehicle. At a one- or two-way stop-controlled intersection, delay refers to the worst movement.
- c. LOS calculations are based on the methodology outlined in the Highway Capacity Manual 6th Edition and performed using Synchro 11.0

Source: Kimley-Horn 2024

Table 4.17-11: Horizon Year (2046) Conditions Plus Project Roadway Segments LOS Summary compares the roadway segment LOS analysis results under Horizon Year (2046) Conditions and Horizon Year (2046) Plus Project Conditions, showing all segments are expected to continue to operate at LOS C or better with the addition of project traffic.

TABLE 4.17-11: HORIZON YEAR (2046) CONDITIONS PLUS PROJECT ROADWAY SEGMENTS LOS SUMMARY

Study Roadway Segment	Existing Functional Class	Horizon Year (2046) Baseline			Horizon Year (2046) Plus Project			Change in V/C
		Average Daily Traffic	Volume to Capacity Ratio (V/C)	LOS C or Better?	Average Daily Traffic	Volume to Capacity Ratio (V/C)	LOS C or Better?	
Houghton Road, Wible Road to H Street	2-Lane Collector	2,796	0.19	Yes	4,096	0.27	Yes	0.09
Houghton Road, H Street to SR-99 Southbound Ramps	2-Lane Collector	3,353	0.22	Yes	6,713	0.45	Yes	0.22
Houghton Road, SR-99 Southbound Ramps to SR-99 Northbound Ramps	2-Lane Collector	4,797	0.32	Yes	6,867	0.46	Yes	0.14
Houghton Road, SR-99 Northbound Ramps to Union Avenue	2-Lane Collector	4,384	0.29	Yes	5,164	0.34	Yes	0.05
Wible Road, Houghton Road to South Private Road	2-Lane Collector	1,433	0.10	Yes	3,713	0.25	Yes	0.15

Source: Kimley-Horn 2024.

In summary, the results of the traffic analysis indicate that the proposed project would degrade the LOS operations with the addition of project traffic at the following location that would require additional improvements:

- Intersection No. 1: Houghton Road/Union Avenue

Further, the CA MUTCD peak-hour traffic signal warrants were evaluated at the one deficient intersection identified above under the Opening Year (2025) Plus Project scenario. Based on the thresholds, Houghton Road/Union Avenue would not meet any CA MUTCD signal warrants under Opening Year (2025) baseline

conditions but would satisfy CA MUTCD Warrant 3 conditions for signalization under Opening Year (2025) Plus conditions. Therefore, the proposed project would include **Mitigation Measure MM 4.17-1**, which would improve the deficient intersection as recommended in the Traffic Study. **Figure 4.17-8, Mitigation Transportation Conditions**, illustrates the proposed transportation improvements and resulting intersection conditions detailed under **Mitigation Measure MM 4.17-1**.

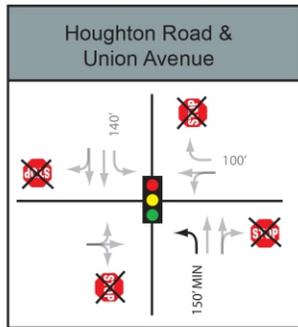
Table 4.17-12: opening Year (2026) Conditions Compared with horizon year (2046) Proposed Project improvements LOS Summary below displays the intersection LOS analysis results under Opening Year (2025) compared with Horizon Project (2046) Conditions with the implementation of **Mitigation Measure MM 4.17-1** for the deficient intersections. To alleviate the intersection LOS deficiency, the proposed project would signalize the intersection of Houghton Road/Union Avenue (Intersection No. 6) and modify the raised median on Union Avenue to provide a northbound right-turn pocket (150 feet minimum). The installation of a traffic signal and turn pocket at the warranted location (Intersection No. 6) would improve the operations to LOS B or better during the commuter peak-hours.

TABLE 4.17-12: OPENING YEAR (2026) CONDITIONS COMPARED WITH HORIZON YEAR (2046) PROPOSED PROJECT IMPROVEMENTS LOS SUMMARY

#	Intersection	Proposed Control	Opening Year (2025) Plus Project Conditions				Horizon Year (2046) Plus Project Conditions and Proposed Improvements			
			AM Peak-hour		PM Peak-hour		AM Peak-hour		PM Peak-hour	
			Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
1	Houghton Road/ Union Avenue	Addition of Northbound left turn pocket of 150 feet minimum. Signalize intersection control	11.0	B	14.7	B	11.1	B	15.0	B

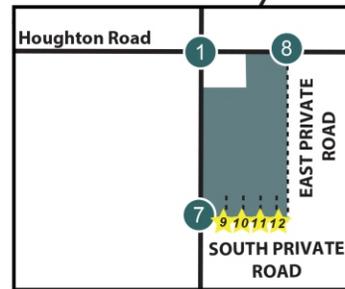
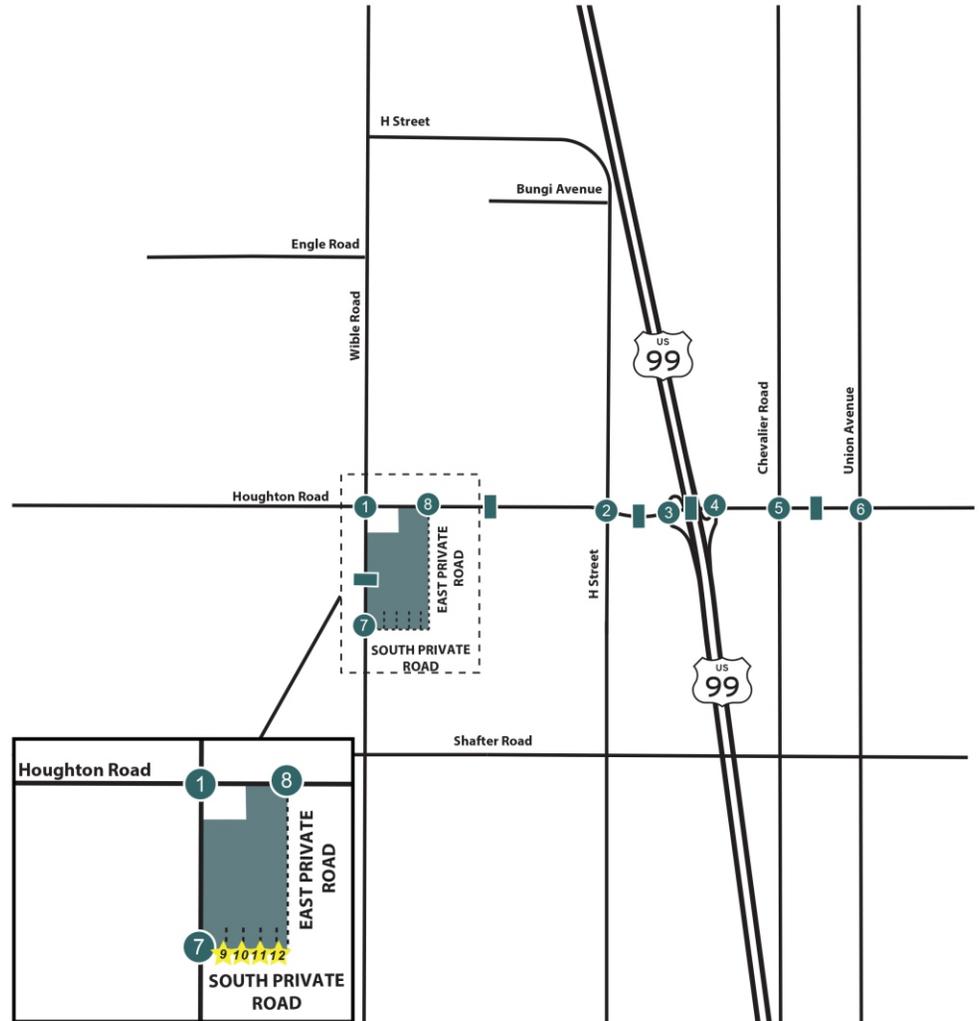
Source: Kimley-Horn 2024.

The queuing at Intersections 1 through 8 was also analyzed for the Horizon Year (2046) Plus Project Condition. According to the traffic analysis, results show that all calculate queue lengths are less than available storage, and the proposed project is not expected to cause queuing deficiencies that would block adjacent through movements at intersections or queues that would extend into ramp’s deceleration areas or block the mainline traffic. Thus, the proposed project would be consistent with the General Plan and impacts would be less than significant.



LEGEND

- Project Site
- ⊗ Signalized Study Intersection
- ⊗ Unsignalized Study Intersection
- Study Area Roadway Segment
- ⋯ Future Roadway
- ★ Project Driveway
- XXX' Turn Pocket Length
- 🚦 Proposed Signal



Source: Kimley-Horn Associates.

Figure 4.17-8
Mitigation Transportation Conditions

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Transit, Bicycle, and Pedestrian Facilities

There are no dedicated pedestrian or bicycle facilities in the immediate vicinity of the project site or along the surrounding roadways. Because of the rural nature of the project area, bicycle traffic is limited. The proposed 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 proposed project would not house residents or employees and, therefore, would not have characteristics that could influence alternative means of transportation.

Mitigation Measures

MM 4.17-1 Prior to Certificate of Occupancy, the project site shall be improved with the following features:

- a. Intersection No. 6 (Houghton Road/Union Avenue) shall be improved with the following features:
 - i. Northbound: Modify raised median to provide left-turn pocket, thru lane and thru/right-turn lane.
 - ii. Southbound: Existing left-turn pocket (140 feet), thru lane and thru/right-turn lane.
 - iii. Eastbound: Existing shared left-turn/thru/right-turn lane.
 - iv. Westbound: Existing shared left-turn/thru lane and right-turn pocket (100 feet).
 - v. Signalize intersection, providing northbound/southbound protected left-turn phasing and eastbound/westbound permissive phasing.

Level of Significance

With implementation of **Mitigation Measure MM 4.17-1**, impacts would be less than significant.

Impact 4.17-2: The proposed project would conflict or be inconsistent with CEQA Guidelines Section 15064.3(b).

The new CEQA Guidelines Section 15064.3(b) was adopted in December 2018 by the California Natural Resources Agency. With the passage of SB 743, VMT has become an important indicator for determining whether a new development will result in a “significant transportation impact” under CEQA. These revisions to the CEQA Guidelines criteria for determining the significance of transportation impacts are primarily focused on projects within transit priority areas and shift the focus from driver delay to reduction of greenhouse gas emissions, creation of multimodal networks, and promotion of a mix of land uses. VMT is a measure of the total number of miles driven to or from a development and is sometimes expressed as an average per trip or per person.

CEQA Guidelines Section 15064.3, subdivision (b) requires an evaluation of a project’s transportation impacts based on VMT. VMT refers to the amount and distance of automobile travel attributable to a project. CEQA gives the lead agency discretion in selecting an appropriate methodology and significance threshold for VMT impacts. A lead agency may conduct either a qualitative or quantitative analysis of VMT

impacts. CEQA Guidelines and OPR Guidance recommend that, if possible, lead agencies conduct a quantitative analysis based on transportation models. However, where existing models or methods are not available, the lead agency may instead prepare a qualitative analysis. CEQA Guidelines note that for many projects, a qualitative analysis of construction traffic may be appropriate.

For the purposes of SB 743 analysis and determination of transportation-related significant impacts, the “industrial” land use was used for the proposed project. As of July 1, 2020, the State of California has fully adopted a change in CEQA significant impact methodology for transportation impacts to use VMT as opposed to LOS via SSB 743. Kern County and the City of Bakersfield have not yet adopted a VMT methodology and significant criteria; therefore, the analysis was conducted based on the guidance from the OPR Technical Advisor on Evaluation Transportation Impacts in CEQA.

As described in the Vehicle Miles Traveled Analysis within the Traffic Study prepared by Kimley-Horn, Kimley-Horn had developed a VMT efficiency matrices using Replica Big Data platform for the proposed project as well as covering most of California. Replica provides travel and demographic data similar to a travel demand model with various trip attributes such as trip mode, trip purpose, trip distance, origin, and destination. Replica provides trip data for the year 2023 using different data points including cell phone data. Vehicle trips by purpose and trip distances for Kern County and surrounding areas were compiled at block-group level from the Replica big data platform. Population data from the Census Bureau's American Community Survey (ACS) was compiled for the year 2019 as well. VMT per Capita for the Los Angeles County as well as for the Project area separately was calculated at block-group level, using the existing big data trips, trip purpose, trip distance and population. The proposed project area VMT was compared against the threshold considered for this project to assess potential significant VMT impacts.

As shown in **Table 4.17-13: VMT Per Employee—Replica Big Data** and the proposed project would create a net increase of Total Countywide VMT.

TABLE 4.17-13: VMT PER EMPLOYEE—REPLICA BIG DATA

Efficiency Metric	Existing County Average VMT	VMT Threshold	Project Area VMT	Potentially Significant?
VMT per Employee	23.29	19.80	26.23	<u>Yes</u>

Source: Kimley-Horn 2024.

The proposed project would result in a significant impact, and requires mitigation that would be expected to reduce the average miles traveled to the project site by 6.43 VMT per employee, or approximately 24.5 percent of the total VMT.

Since a significant CEQA VMT transportation impact has been identified, feasible mitigation measures to avoid or reduce the impact must be identified. OPR provides a list of potential measures to reduce VMT but gives the lead agency full discretion in the selection of mitigation measures. For an individual development project, VMT mitigations typically require the development of a Transportation Demand Management (TDM) program. The TDM Program is created by an applicant for their land use project based on a list of strategies agreed to with the County. **Mitigation Measure MM 4.17-2** provides for the development of a TDM Program to include a combination of strategies to reduce VMT. TDM strategies

will need to be evaluated, in consultation with the County staff and applicant, for reducing VMT impacts determined to be potentially significant. **Mitigation Measure MM 4.17-2** would reduce the proposed project's VMT per employee by 5.4 percent. However, since the proposed mitigation is not expected to reduce the proposed project's VMT per employee by more than 24.5 percent, the proposed project's VMT impact would be significant and unavoidable. Therefore, with the implementation of **Mitigation Measure MM 4.17-2** and the development of a TDM Program, impacts would be significant and unavoidable.

Mitigation Measures

MM 4.17-2 Prior to the issuance of construction or building permits, the proposed project shall prepare a Transportation Demand Management Program to reduce project's Vehicle Miles Traveled associated with employee trips. The Transportation Demand Management 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:

1. **Alternative-Mode Subsidies and Incentives:** Provide subsidization of transit fares, carpool, or electric vanpool for employees of the project site. Provide monetary incentives for alternative-modes of transportation.
2. **Travel Behavior Change Program:** Provide a website that allows employees to research other modes of transportation for commuting to the site.
3. **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.
4. **Commute Assistance Center:** Provide a computer kiosk that allows employees to research other modes of transportation for commuting.
5. **Preferential Carpool/Vanpool Parking Spaces:** Provide reserved carpool/vanpool spaces closer to the building entrance.
6. **Passenger Loading Zones:** Provide passenger loading zones for easy access to carpools or vanpools.
7. **Bike Share:** Implement a bike share to allow people to have on-demand access to a bicycle, as-needed.
8. **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 to support ongoing use of bicycles for transportation.

Level of Significance

Despite implementation of **Mitigation Measure MM 4.17-2**, impacts would be significant and unavoidable.

Impact 4.17-3: The proposed project would substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

During construction, the proposed project would require the delivery of heavy construction equipment using area roadways, some of which may require transport by oversize vehicles. Heavy equipment associated with these components would not be hauled to/from the site daily, but rather would be hauled in and out on an as-needed basis. Nevertheless, the use of oversize vehicles during construction can create a hazard to the public by limiting motorist views on roadways and by the obstruction of space, which is considered a potentially significant impact. During project construction and operation, the need for and number of escorts and California Highway Patrol escorts, as well as the timing of transport, would be at the discretion of Caltrans and Kern County and would be detailed in respective oversize load permits. Thus, potential impacts would be reduced to a less than significant level.

Additionally, as a required of **Mitigation Measure MM 4.17-3**, oversize vehicles used on public roadways during construction must obtain required permits and obtain approval of a Construction Traffic Control Plan; obtain all necessary encroachment permits; submit documentation that identifies the roads to be used during construction; and submit a post-construction video log and inspection report to the County within 30 days of completion of construction documenting any damage to County roads incurred during construction activities. This would ensure that construction-related oversize vehicle loads are in compliance with applicable California Vehicle Code sections and California Street and Highway Codes applicable to licensing, size, weight, load, and roadway encroachment of construction vehicles.

As stated in **Section 4.17.4, Methodology**, the proposed project and Traffic Study analyze non-environmental impacts that include consistency with other plans (i.e., a general plan), fee programs, or ongoing network monitoring. In February 2010, Kern County updated their 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. The proposed project would be subject to all requirements as outlined in Standards for Traffic Engineering and would, in turn, reduce or eliminate any design features or line-of-sight obstructions that would potentially create substantially hazardous conditions.

Mitigation Measures

MM 4.17-3 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 (Caltrans) 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:

- i. Timing of deliveries of heavy equipment and building materials.
 - ii. Directing construction traffic with a flag person.
 - iii. 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.
 - iv. Ensuring access for emergency vehicles to the project sites.
 - v. Temporarily closing travel lanes or delaying traffic during materials delivery, transmission line stringing activities, or any other utility connections.
 - vi. Maintaining access to adjacent property.
 - vii. Specifying both construction-related vehicle travel and oversize load haul routes, minimizing construction traffic during the AM and PM peak-hours.
- 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 preconstruction 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.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.17-3**, Impacts would be less than significant.

Impact 4.17-4: The proposed project would result in inadequate emergency access.

The project site is located in a rural area with the primary access roads (Houghton Road and Wible Road) allowing adequate egress/ingress to the site in the event of an emergency. In the event of road closures or obstruction during construction activities, the proposed project would be required to ensure continued access for emergency vehicles as part of the Construction Traffic Control Plan required in **Mitigation Measure MM 4.17-3**. During project operation, on-site access roadways (internal to the site) would be constructed, providing emergency vehicles the ability to access the site from multiple locations and increasing overall site accessibility. Therefore, the development of the proposed project would not physically interfere with emergency vehicle access or personnel evacuation from the site.

As described above, increased project-related traffic would not cause a significant increase in congestion and/or significantly worsen the existing operating conditions on area roads; therefore, project-related traffic would not affect emergency access to the project site or any other surrounding location. The proposed project would not require closures of public roads that could inhibit access by emergency vehicles. For these reasons construction and operation would have a less than significant impact on emergency access.

Mitigation Measures

Implement **Mitigation Measure MM 4.17-3**.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.17-3**, impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

Impacts of the proposed 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.

The geographic context for the cumulative analysis is a 1-mile radius around the project site. Cumulative projects surrounding the proposed project are listed in **Chapter 3, Project Description, Table 3-5, Cumulative Projects List**. The area surrounding the project site consists of similar land uses to the project site's current and proposed uses, with light industrial warehouse use interspersed among parcels used for agriculture. Most of the projects consist of similar development for warehousing and trucking facilities, and many involving the installation of storage or equipment or building remodeling that would not result in a change of use or increase in capacity. As shown in **Tables 4.17-5 and 4.17-10**, traffic conditions of the intersections analyzed in the project area are not predicted to be reduced to levels below LOS C under Opening Year or Horizon Year scenarios.

At a project level, the proposed project would have a less than significant impact with mitigation incorporated, as stated in **Mitigation Measure MM 4.17-1 through MM 4.17-3**. All projects included in Table 3-5 are subject to CEQA review, and it is therefore assumed that the lead agencies would require similar mitigation measures and conditions of approval as those included in **Mitigation Measure MM**

4.17-1 through **MM 4.17-3**. However, individual impacts from the projects included in **Table 3-5** have the potential to be significant and cannot be assumed to be reduced to the level of the proposed project. Therefore, cumulative impacts would be significant and unavoidable, and the proposed project would make a cumulatively considerable contribution to the impact.

Consistency with Programs, Plans, and Policies

Under CEQA analysis and the requirements of **Impact 4.17-1**, the proposed project and all projects listed in **Chapter 3, Project Description, Table 3-5**, are required to evaluate their respective consistency with existing programs, plans, and policies. Similarly, future projects would also be required to consider their consistencies and evaluate LOS impacts against County standards as a part of the approval process. Therefore, cumulative impacts related to consistency with plans, programs, and policies would be less than significant.

With respect to the proposed project's contribution to the less than significant impact, surrounding roadways and intersections were evaluated to determine whether the proposed project would conflict with existing plans, programs, and policies related to transportation, especially the County's LOS requirements, create geometric hazards on the surrounding and internal roadways, or result in inadequate emergency access. As discussed above, development of the proposed project would generate 4,341 daily PCE trips, with 573 PCE trips (455 inbound/118 outbound) during the AM peak-hour and 767 PCE trips (300 inbound/467 outbound) during the PM peak-hour. The LOS evaluated for study area traffic operations and considered the project's cumulative impact through 2046 and found that the proposed project would have less than significant impacts with the implementation of **Mitigation Measure MM 4.17-1**. Development of the proposed project, with implementation of the existing regulatory requirements and **Mitigation Measure MM 4.17-1** discussed above, would result in less than significant impacts to programs, plans, and policies and LOS standards.

Guidelines Section 15064.3(b) Consistency

Development of the proposed project, with implementation of the existing regulatory requirements and **Mitigation Measure MM 4.17-2** discussed above, would result in significant and unavoidable impacts to VMT standards. It cannot be assumed that the projects listed in **Chapter 3, Project Description, Table 3-5**, would be required to implement mitigation measures similar to those outlined in **Mitigation Measure MM 4.17-2** or that their effects would be reduced to less than significant levels. For this reason, the project's incremental effect is cumulatively considerable when viewed in connection with the effects of other closely related project and the effects of probable future projects. Thus, cumulative impacts to transportation would be significant and unavoidable.

Geometric Design Features

Cumulative projects surrounding the proposed project that would occur at the same time as the proposed 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 4.17-3**, the proposed project's contribution to less than significant cumulative impacts would be less than significant. **Mitigation Measure MM 4.17-3** implements a Construction Traffic Control Plan, which would ensure that the proposed project does not significantly

impact traffic during construction and inform the County of construction details. Similarly, the impact on emergency access was also evaluated for the proposed project and found to be less than significant. Emergency access to the site is generally an impact contained at the site and therefore 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.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.17-1** through **MM 4.17-3** would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.17-1** through **Mitigation Measure MM 4.17-3**, cumulative impacts would be less than significant. Even with the implementation of **Mitigation Measure MM 4.17-2**, cumulative impacts to VMT would be significant and unavoidable.

Section 4.18
Tribal Cultural Resources

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4.18.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the existing Tribal Cultural Resources (TCR) setting in the region, the project site, and vicinity as well as the relevant regulatory setting. This section also evaluates the potential impacts related to TCRs that could result from implementation of the project. The analysis in this section is based, in part, on the results of the Phase I Cultural Resources Assessment (FirstCarbon Solutions [FCS] 2023b), provided in Appendix D of this Draft EIR, and results of the Native American consultation conducted by the County for purposes of compliance with California Environmental Quality Act (CEQA) requirements prompted by Assembly Bill (AB) 52.

4.18.2 Environmental Setting

Refer to Section 4.5, Cultural Resources, of this Draft EIR for further discussion of the TCR environmental setting.

Existing Tribal Cultural Resources

Native American Correspondence- SB 18 and AB 52 Consultation

On May 13, 2021, FCS sent a request to the Native American Heritage Commission (NAHC) in an effort to determine whether any sacred sites are listed on its Sacred Lands File (SLF) for the project site. A response was received on May 25, 2021, indicating that the SLF search failed to locate the presence of Native American cultural resources within the project site. The NAHC included a list of 24 tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by implementation of the proposed project are addressed, a letter containing project information and requesting additional information was sent to each tribal representative on June 1, 2021. A total of three responses were received. On June 1, 2021, the yak tityu yak tilhini-Northern Chumash Tribe responded with no comments on the proposed project and deferred to a more local tribe, and on June 2, 2021, the Quechan Tribe of the Fort Yuma Reservation had no additional information or comments. On June 1, 2021, the Xolon-Salinan Tribe stated that the project site is not within their ancient territory. To address the 24.76 acres that were added east of the original project footprint, letters containing the updated project footprint and project description were sent to each of the tribal representatives on May 24, 2023. On May 25, 2023, a reply was received from the yak tityu tityu yak tilhini Northern Chumash Tribe, and on May 30, 2023, a reply was received from the Quechan Tribe of the Fort Yuma Reservation. Both tribes declined to consult and deferred to tribes closer to the project site. No other responses have been received to date.

Additionally, on November 5, 2021, the lead agency sent letters pursuant to AB 52 to the 24 tribal representatives. One response was received from the San Manuel Band of Mission Indians declining

consultation. No other responses have been received to date (**Table 4.18-1, Summary of AB 52 and SB 18 Consultation Efforts**).

On September 27, 2023 the Lead Agency sent a new request to the NAHC regarding the proposed project site as described in this document. A response was received on November 17, 2023, indicating that the newer SLF search failed to locate the presence of Native American Cultural resources within the 93.74 acre project site. The NAHC included an updated list of only nine (9) tribal representatives available for consultation. To ensure that all Native American knowledge and concerns over potential TCRs that may be affected by implementation of the proposed project are addressed, a letter containing project information and requesting additional information was sent to each tribal representative on November 21, 2023. A total of two responses were received. On November 30, 2023, replies from the Santa Ynez Band of Chumash Indians and the Yhaaviatam of San Manuel Nation both declining consultations. No other responses have been received to date.

TABLE 4.18-1: SUMMARY OF AB 52 AND SB 18 CONSULTATION EFFORTS

Individual Contacted	Tribe/Organization	Date Letter Mailed	Response Received
James Rambeau, Senior Chairperson	Big Pine Paiute Tribe of the Owens Valley	November 5, 2021	No response
Sally Manning, Environmental Director	Big Pine Paiute Tribe of Owens Valley	November 5, 2021	No response
Danelle Gutierrez THPO	Big Pine Paiute Tribe of Owens Valley	November 5, 2021	No response
Julio Quair, Chairperson	Chumash Council of Bakersfield	November 5, 2021	No response
Mariza Sullivan, Chairperson	Coastal Band of the Chumash Nation	November 5, 2021	No response
Jairo F. Avila, THPO	Fernandeno Tataviam Band of Mission Indians	November 5, 2021	No response
Julie Turner, Secretary	Kern Valley Indian Community	November 5, 2021	No response
Robert Robinson, Chairperson	Kern Valley Indian Community	November 5, 2021	No response
Brandy Kendricks	Kern Valley Indian Community	November 5, 2021	No response
Delia Dominguez, Chairperson	Delia Dominguez, Chairperson	November 5, 2021	No response
Jordan D. Joaquin, President	Quechan Tribe of the Fort Yuma Reservation	November 5, 2021	No response.
Virgil S. Smith, Vice President	Quechan Tribe of the Fort Yuma Reservation	November 5, 2021	No response.
Jill McCormick, Historic Preservation Officer	Quechan Tribe of the Fort Yuma Reservation	November 5, 2021	No response.
Manfred Scott, Acting Chairman Kw'ts'an	Quechan Tribe of the Fort Yuma Reservation	November 5, 2021	No response.
Donna Yocum, Chairperson	San Fernando Band of Mission Indians	November 5, 2021	No response

Individual Contacted	Tribe/Organization	Date Letter Mailed	Response Received
Jessica Mauck, Director-CRM Dept.	San Manuel Band of Mission Indians	November 5, 2021	Declined Consultation
Leo Sisco, Chairperson	Santa Rosa Rancheria Tachi Yokut Tribe	November 5, 2021	No Response
Kenneth Kahn, Chairperson	Santa Ynez Band of Chumash Indians	November 5, 2021	No Response
Octavio Escobedo III, Chairperson	Tejon Indian Tribe	November 5, 2021	No Response
Colin Rambo, CRM Tech	Tejon Indian Tribe	November 5, 2021	No Response
Robert L. Gomez, Jr., Tribal Chairperson	Tubatulabals of Kern Valley	November 5, 2021	No Response
Neil Peyron, Chairperson	Tule River Indian Tribe	November 5, 2021	No Response
Karen White, Chairperson	Xolon-Salinan Tribe	November 5, 2021	No Response
Mona Olivas Tucker, Chairwoman	yak tityu yak tiñhini–Northern Chumash Tribe	November 5, 2021	No Response
Julio Quair, Chairperson	Chumash Council of Bakersfield	November 21, 2023	No Response
Gabe Frausto, Chairman	Coastal Band of the Chumash Nation	November 21, 2023	No Response
Delia Dominguez, Chairperson	Kitanemuk and Yowlumne Tejon Indians	November 21, 2023	No Response
Kelsie Shroll, Elders' Council Administrative Assistant	Santa Ynez Band of Chumash Indians	November 21, 2023	No Response
Nakia Zavalla, Tribal Historic Preservation Officer	Santa Ynez Band of Chumash Indians	November 21, 2023	Declined Consultation
Wendy Teeter, Cultural Resources Archaeologist	Santa Ynez Band of Chumash Indians	November 21, 2023	No Response
Sam Cohen, Government and Legal Affairs Director	Santa Ynez Band of Chumash Indians	November 21, 2023	No Response
Candice Garza, CRM Scheduler	Tejon Indian Tribe	November 21, 2023	No Response
Neil Peyron, Chairperson	Tule River Indian Tribe	November 21, 2023	No Response
Michael Mirelez, Cultural Resources Coordinator	Torres Martinez Desert Cahuilla Indians	November 21, 2023	No Response
Darrell Mike, Tribal Chairman	Twenty-Nine Palms Band of Mission Indians	November 21, 2023	No Response
Anthony Madrigal Jr., Tribal Grants Administrator	Twenty-Nine Palms Band of Mission Indians	November 21, 2023	No Response
Alexandra McCleary, Ph.D,	Yuhaaviatam of San Manuel Nation	November 21, 2023	Declined Consultation

Nearby Historical Places

One previously recorded resource has been recorded within the 0.5-mile radius. The Baldwin Ranch Site (P-15-012209) consists of two cultural aspects, historic and prehistoric, which were distributed in five loci throughout five agricultural fields. Locus C contains five structures that were identified in topographic maps; however, only one foundation was observed. Additionally, Locus A, B, D, and E consisted of prehistoric and historic concentrations. Baldwin Ranch failed to meet the criteria for inclusion in the California Historical Landmarks (CHL) or the National Register of Historic Places (NRHP) inventories.

4.18.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

Native American Heritage Commission

Public Resources Code Section 5097.91 established the NAHC, the duties of which include inventorying places of religious or social significance to Native Americans and identifying known graves and cemeteries of Native Americans on private lands. Public Resources Code Section 5097.98 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 Resources Code Sections

AB 52 was approved by California State Governor Edmund Gerald “Jerry” Brown Jr. on September 25, 2014. The act amended California Public Resources Code Section 5097.94 and added Public Resources Code 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 (MND) 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 TCRs. Public Resources Code Section 21074(a)(1) and (2) defines TCRs 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 California Register of Historical Resources (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 TCR update to *CEQA Guidelines* Appendix G, which was approved by the Office of Administrative Law on September 27, 2016.

Public Resources Code 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 that are traditionally and culturally affiliated with the geographic area of the project (as defined in Public Resources Code [PRC] Section 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)).

Public Resources Code Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of TCRs; the significance of the project's impacts on the TCRs; 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 an MND (PRC §§ 21082.3(d)(2) and (3)).

Public Resources Code Section 21082.3(c)(1) states that any information, including but not limited to the location, description, and use of TCRs, 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.

Senate Bill 18

Senate Bill (SB) 18 (Statutes of 2004, Chapter 905), which went into effect January 1, 2005, requires local governments (city and county) to consult with Native American tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to “provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places” (Governor's Office of Planning and Research, 2005).

The purpose of involving tribes at these early planning stages is to allow consideration of cultural places in the context of broad local land use policy before individual site-specific, project-level land use designations are made by a local government. The consultation requirements of SB 18 apply to general plan or specific plan processes proposed on or after March 1, 2005.

According to the Tribal Consultation Guidelines: Supplement to General Plan Guidelines (Governor's Office of Planning and Research [OPR] 2005), the following are the contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the NAHC) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code § 65352.3).
- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code § 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.
- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code § 65092).

Local

There are no applicable local regulations for this issue area.

4.18.4 Impacts and Mitigation Measures

Methodology

The proposed project's potential impacts to 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 TCRs. Using the aforementioned resources and professional judgment, impacts were analyzed 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 CEQA Guidelines Appendix G, to determine whether a project could potentially have a significant adverse effect on TCRs.

A project would have a significant impact on tribal cultural resources if it would:

- 1) 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, and that is:
 - a) 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

- b) 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.

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).

The SLF search conducted by the NAHC did not identify the presence of Native American cultural resources within the project site. Moreover, no tribe requested consultation within the 30-day period established by AB 52 or prior to publication of this document. However, if a potential resource is identified during construction, those activities would be required to stop until appropriate identification and treatment measures are implemented. As described in the Phase I Cultural Resources Assessment, the June 7, 2021, October 11, 2021, and May 3, 2023, pedestrian surveys conducted at the site rendered a negative result for Native American cultural resources in the immediate project area. Nonetheless, implementation of **Mitigation Measures MM 4.5-1 through MM 4.5-3**, included in Section 4.5, *Cultural Resources*, of this Draft EIR, would ensure impacts to TCRs remain at a less than significant level.

Mitigation Measures

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).

Level of Significance

With implementation of **Mitigation Measures MM 4.5-1 through MM 4.5-3**, impacts would be 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 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 above, no TCRs were identified through the SLF search conducted by the NAHC, nor as part of the County's government-to-government notification and consultation efforts with interested Native American groups conducted pursuant to AB 52 and SB 18. Given that no TCRs have been identified within or immediately adjacent to the project site, it is concluded that the project would not cause a substantial adverse change in the significance of a tribal cultural resource. Impacts would be less than significant. Implementation of **Mitigation Measures MM 4.5-1** through **MM 4.5-3** included in **Section 4.5, *Cultural Resources***, of this Draft EIR, would further reduce potential impacts to TCRs.

Mitigation Measures

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).

Level of Significance

With implementation of **MM 4.5-1** through **MM 4.5-3** impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

The geographic scope of the cumulative TCR analysis is the project vicinity. Tribal cultural resource impacts tend to be localized because the integrity of any given resource depends on what occurs only in the immediate vicinity around that resource, such as disruption of soils; therefore, in addition to the project site itself, the area near the project site would be the area most affected by project activities (generally within a 0.5-mile radius). Cumulative projects would be required to comply with federal, State, and local policies that protect cultural and tribal cultural resources, including the provisions of SB 18 and AB 52, Section 15064.5 of the CEQA Guidelines and Sections 5024.1 and 5097 of the Public Resources Code. Accordingly, because cumulative development would be required to comply with long-term planning documents and regulatory agency guidance establishing policies (including but not limited to evaluation requirements and inadvertent discovery procedures) that reduce impacts to potential cultural resources, cumulative impacts would be less than significant.

Moreover, the proposed project's incremental contribution to less than significant cumulative impacts would not be significant and applicable mitigation measures include County development standards. The results of the tribal consultation indicate that the project would not have a direct impact on any known historic resources, archaeological resources, human remains, or TCRs.

Construction activities associated with development projects in the project vicinity may have the potential to encounter undiscovered TCRs. These projects would be required to mitigate impacts through compliance with applicable federal and State laws governing cultural resources. Although there is the possibility that previously undiscovered resources could be encountered by subsurface earthwork activities associated with the cumulative projects, the implementation of construction mitigation measures would ensure that undiscovered cultural resources are not adversely affected by cumulative project-related construction activities, which would prevent the destruction or degradation of potentially significant cultural resources. The implementation of Mitigation Measures MM 4.5-1 through MM 4.5-3 for the cumulative projects and the proposed project would result in a less than significant impact to cultural resources.

Mitigation Measures

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).

Level of Significance

With implementation **Mitigation Measures MM 4.5-1** through **MM 4.5-3** cumulative impacts would be less than significant.

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Section 4.19
Utilities and System Services

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4.19.1 Introduction

This section of the Draft Environmental Impact Report (Draft EIR) describes the affected environment and regulatory setting of the proposed project pertaining to demand for operational utilities (water supply, stormwater control, wastewater, and solid waste disposal, electricity, natural gas, and telecommunications). This section describes existing infrastructure and levels of service and evaluates whether any improvements would be necessary to accommodate the proposed project. Information in this section is based primarily on the project specific *Stormwater Drainage Study* (KHA 2024a), *Water Supply Assessment* (EKI 2023) and *Wastewater Treatment Plant Preliminary Design Report* (KHA 2023b) provided in Appendix G and Appendix K of this Draft EIR, respectively.

4.19.2 Environmental Setting

Water Supply

There are typically three sources of supply water: (1) natural sources; (2) man-made sources; and (3) reclamation. Natural sources include rivers, lakes, streams, and groundwater stored in aquifers. Man-made sources include runoff water that is 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 in order to ensure that there is no possibility of direct human consumption. The project site is located at the southern end of the San Joaquin Valley within unincorporated Kern County and would be served by the California Water Service (Cal Water), Bakersfield District. Cal Water's Bakersfield District was formed in 1926 and serves the City of Bakersfield, the area surrounding Bakersfield, and the North Garden area through an operations and maintenance contract with the City of Bakersfield. The source of water supply for the Bakersfield District is a combination of groundwater, untreated local surface water purchased from City of Bakersfield, and treated local surface and imported water purchased from Kern County Water Agency (KCWA) Improvement District 4 (ID4). There are no new sources of supply currently planned.

The Bakersfield District pumps groundwater from the Kern County Subbasin (Department of Water Resources [DWR] Basin No. 5-022.14) of the San Joaquin Valley Basin. The Kern County Subbasin is not adjudicated; however, the Kern County Subbasin has been prioritized by DWR as "high," and is considered by DWR to be critically overdrafted. The Groundwater Sustainability Agencies (GSAs), which collectively represent the Kern County Subbasin, completed five Groundwater Sustainability Plans (GSPs) in January 2020 per the Sustainable Groundwater Management Act (SGMA). The District also purchases untreated Kern River surface water from City of Bakersfield, and treated Kern River or State Water Project (SWP) water from KCWA Improvement District 4 (ID-4). Based on all available information, the combination of groundwater and purchased imported water supplies is expected to be sufficient to support the Bakersfield District's projected water demand through 2045. (Cal Water 2021)

The project site is currently used as an active agricultural field and has been historically covered by row crops. The water on-site for irrigation is currently and has historically been provided by groundwater supplies. The project site does not contain any structures, and therefore, does not have any existing water utilities on-site.

Sustainable Groundwater Management Act

The SGMA requires the formation of local-controlled groundwater sustainable agencies in high- and medium-priority groundwater basins. These GSAs are responsible for developing and implementing a GSP to ensure the basin is operated within its sustainable yield without causing undesirable results.

The project site is located within the Kern County Subbasin of the San Joaquin Valley Groundwater Basin. The Subbasin encompasses a surface area of 1,792,000 acres (approximately 2,800 square miles) and contains approximately 6 miles of marine and continental sediments. The Subbasin has approximately 40,000,000 acre-feet of groundwater storage and an additional 10,000,000 acre-feet of storage capacity. The Subbasin is bounded by the Sierra Nevada on the east; the Tehachapi mountains, San Emigdio mountains, and White Wolf Subbasin to the south; and the Coast Range to the west. The Kettleman Plain, Tulare Lake, and Tule Subbasins lie to the north.

As mentioned above, 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 submittal of a GSP under the SGMA. According to the GSP prepared by the Kern Groundwater Authority (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).

The SGMA requires the formation of local-controlled groundwater sustainable agencies in high- and medium-priority groundwater basins. These GSAs are responsible for developing and implementing a GSP to ensure the basin is operated within its sustainable yield without causing undesirable results. 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 Groundwater Sustainability Agency, Wheeler Ridge-Maricopa GSA, and the Tejon-Castaic 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.

Wastewater

Kern Sanitation Authority (KSA) provides maintenance and wastewater service for Kern County. There is no sewer infrastructure currently on-site. The proposed project would be served by a private wastewater collection and treatment package system located on-site to accommodate the proposed project’s wastewater needs.

Stormwater Drainage

The project site is characterized by flat terrain used for cultivated agriculture. At an elevation of 330 feet, the project site generally flows from northeast to southwest with an average slope of 0.3 percent. Surface waters flow toward dirt ditches bordering the project site along the existing unpaved private roads, and along Houghton Road and Wible Road. In its existing state, there is no municipal drainage infrastructure within the public right-of-way. Irrigation channels between the project site and the bordering dirt roads are used to capture and reuse irrigation water from agricultural wells outside of the project site (KHA 2024a). According to the *Stormwater Drainage Study*, the proposed project would divide the project site into three drainage management areas (DMAs) that would drain to retention basins A, B, and C. Stormwater runoff would sheet flow across paved areas and landscaping into various inlets and storm drainage networks throughout the project site. Roof runoff would be captured via roof drains/downspouts and conveyed to the overall storm drainage system. The proposed retention basins would be designed to retain and treat, via infiltration, peak 100-year storm runoff flow. The proposed project would adhere to a 100 percent retention rate for stormwater captured on-site.

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 below. Nonhazardous solid waste consists of organic and nonorganic solid, semi-solid, 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, vegetable or animal solid and semi-solid 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 can 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.

Kern County is responsible for meeting the California Integrated Waste Management Act of 1989 (AB 939). AB 939 required cities and counties to reduce the amount of solid waste being sent to landfills by 50 percent by January 1, 2000. It also required cities and counties to prepare solid waste planning documents. These documents include the Source Reduction and Recycling Element (SRRE), the Hazardous Waste Element (HHWE), and the Non-disposal Facility Element (NDFE). All three of these documents, as well as the Integrated Waste Management Plan, approved February 1998 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.

Construction and Demolition (C&D) waste is 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, which 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 Kern County Waste Management Department (KCWMD) administers or sponsors the following recycling programs, which 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, appliances, etc.
- Drop-off recycling centers for household recyclables. The County- and City-operated drop-off recycling centers, which are located 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. Services are provided to all Kern County residents.
- Semi-annual “bulky waste” collection events, which 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 KCWMD 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.

Landfills

Solid waste collection services are provided to the Metropolitan Bakersfield planning area by the City of Bakersfield Sanitation Division, contracted private haulers, and County franchise haulers in the unincorporated areas. All solid waste generated within the City of Bakersfield’s Sphere of Influence (SOI) is disposed of in County-operated 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. Although no solid waste is currently generated at the project site, the closest operational landfill to the project site is the Bakersfield Metropolitan (Bena) Landfill, located approximately 17.13 miles northeast of the site. The Bakersfield Metropolitan Landfill is a Class III solid waste facility that accepts wastes from mixed municipal, industrial, construction/demolition, and dead animals (California Department of Resources Recycling and Recovery [CalRecycle] 2019). The permitted capacity, remaining capacity, and anticipated closure date of the Bakersfield Metropolitan Landfill is summarized in **Table 4.19-1, *Bakersfield Metropolitan Landfill Summary***

TABLE 4.19-1: BAKERSFIELD METROPOLITAN LANDFILL SUMMARY

Landfill	Maximum Permitted Capacity	Remaining Capacity (cubic yards)	Maximum Permitted Throughput (tons/day)	Anticipated Year of Closure
Bakersfield Metropolitan (Bena) SLF 2951 Neumarkel Road, Caliente	53,000,000	32,808,260 ¹	4,500	2046

¹ remaining capacity as of 2013.
SOURCE: California Department of Resources Recycling and Recovery (CalRecycle) 2019

Electricity, Natural Gas, and Telecommunications

No electricity, natural gas, or telecommunications facilities are currently located on the project site. No natural gas pipelines are located within the project site. Retail electric service to the City's SOI is provided by Pacific Gas and Electric (PG&E). Accordingly, electric power for construction and station power for operations would be brought to the site through a new substation constructed on-site for the proposed project. Natural gas would not be required for the project.

Telecommunications services are supplied to the metropolitan area by several companies governed by the California Public Utilities Commission. Cable TV service is provided by Cox Cable and Time-Warner under the City and County terms.

4.19.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

California Energy Commission

The California Energy Commission (CEC) is the State's primary energy policy and planning agency. Created in 1974, the CEC has five major responsibilities: forecasting future energy needs and keeping historical energy data, licensing thermal power plants 50 megawatts (MW) or larger, promoting energy efficiency through appliance and building standards, developing energy technologies and supporting renewable energy, and planning for and directing the State response to energy emergencies.

California Public Utilities Commission

The California Public Utilities Commission (CPUC) regulates privately owned electric, natural gas, telecommunications, water, railroad, rail transit, and passenger transportation companies, in addition to authorizing video franchises. In 1911, the CPUC was established by Constitutional Amendment as the Railroad Commission. In 1912, the Legislature passed the Public Utilities Act, expanding the Commission's regulatory authority to include natural gas, electric, telephone, and water companies as well as railroads and marine transportation companies. In 1946, the Commission was renamed the California Public Utilities Commission. It is tasked with ensuring safe, reliable utility service is available to consumers, setting retail energy rates, and protecting against fraud.

California Department of Resources Recycling and Recovery

CalRecycle is the State agency that brings together the State's recycling and waste management programs to move the State toward a circular economy that reduces waste and reuses all materials. Through landmark initiatives like the Integrated Waste Management Act and Beverage Container Recycling and Litter Reduction Act, California works toward a society that uses less, recycles more, and takes resource conservation to higher and higher levels.

CalRecycle's Mission is to protect California's environment and climate for the health and prosperity of future generations through the reduction, reuse and recycling of California resources, environmental education, disaster recovery and the transition from a disposable to a fully circular economy (CalRecycle, 2023b).

State Water Resources Control Board and Regional Water Quality Control Board

The primary responsibility for the protection of water quality in California rests with the California State Water Resources Control Board (State Water Board) and nine Regional Water Quality Control Boards (RWQCBs). The State Water Board sets statewide policy for the implementation of State and federal laws and regulations. The RWQCBs adopt and implement Water Quality Control Plans (Basin Plans), which recognize regional differences in natural water quality, actual and potential beneficial uses, and water quality problems associated with human activities. The project site is within the jurisdiction of the Central Valley RWQCB.

California Department of Water Resources

The 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.

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 California DWR 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.

A GSA has the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. The preparation of a GSP by a GSA is exempt from the California Environmental Quality Act (CEQA). Each GSP must include a physical description of the covered basin, such as groundwater levels, groundwater quality, subsidence, information on groundwater–surface water interaction, data on historical and projected water demands and supplies, monitoring and management provisions, and a description of how the plan will affect other plans, including city and county general plans. The SGMA requires that a GSP ensure that, within 20 years after plan adoption, the following “undesirable results” are avoided:

- Chronic lowering of groundwater levels (not including overdraft during a drought, if a basin is otherwise managed);
- Significant and unreasonable reductions in groundwater storage;
- Significant and unreasonable seawater intrusion;
- Significant and unreasonable degradation of water quality;
- Significant and unreasonable land subsidence; and
- Surface water depletions that have significant and unreasonable adverse impacts on beneficial uses (Water Code Section 10721(w)).

The current status of SGMA regulatory requirements in the project Area, including basin and subbasin priority designations, basin boundary modifications approved by the DWR, the formation of GSAs, the adoption of GSPs, and the adoption of the SGMA emergency regulations by the DWR in 2016, are discussed in detail in **Section 4.10.3, *Hydrology and Water Quality, Regulatory Setting***, including the Sustainable Groundwater Management Act.

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 proposed 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

Passed in 2001, Senate Bill (SB) 610 and SB 221 are companion measures that seek to promote more collaborative planning among local water suppliers and cities and counties. They require that a Water Supply Assessment (WSA) occur early in the land use planning process for all large-scale development projects. 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. They also require an identification of existing water entitlements, rights, and contracts and a quantification of the prior year's water deliveries. In addition, the supply and demand analysis must address water supplies during single and multiple dry years presented in five-year increments for a 20-year projection. In accordance with these measures, a WSA was prepared for the proposed project as it is an industrial use of more than 40 acres (California Water Code Section 10912).

CEQA Guidelines Section 15155(f) provides additional guidance to implement the California Supreme Court's decision in *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412.

The analysis shall include the following:

- (a) Sufficient information regarding the project's proposed water demand and proposed water supplies to permit the lead agency to evaluate the pros and cons of supplying the amount of water that the project will need.
- (b) An analysis of the reasonably foreseeable environmental impacts of supplying water throughout all phases of the project.
- (c) An analysis of circumstances affecting the likelihood of the water's availability, as well as the degree of uncertainty involved. Relevant factors may include but are not limited to, drought, salt- water intrusion, regulatory or contractual curtailments, and other reasonably foreseeable demands on the water supply.
- (d) If the lead agency cannot determine that a particular water supply will be available, it shall conduct an analysis of alternative sources, including at least in general terms the environmental consequences of using those alternative sources, or alternatives to the project that could be served with available water.

Assembly Bills 1881 and 2882

Assembly Bill (AB) 1881 expanded previous legislation related to landscape water use efficiency. AB 1881, the Water Conservation in Landscaping Act of 2006, enacted landscape efficiency recommendations of the California Urban Water Conservation Council for improving the efficiency of water use in new and existing urban irrigated landscapes in California. AB 1881 required the DWR to update the existing Model Local Water Efficient Landscape Ordinance and local agencies to adopt the updated model ordinance or an equivalent. The law also requires the CEC to adopt performance standards and labeling requirements for landscape irrigation equipment, including irrigation controllers, moisture sensors, emission devices, and valves to reduce the wasteful, uneconomic, inefficient, or unnecessary consumption of energy or water.

AB 2882, passed in 2008, encourages public water agencies throughout California to adopt conservation rate structures that reward consumers who conserve water. AB 2882 clarifies the allocation-based rate structures and establishes standards that protect consumers by ensuring a lower base rate for those who conserve water.

California Integrated Solid Waste Management Act of 1989 or Assembly Bill 939

Pursuant to the California Integrated Solid Waste Management Act of 1989 (Public Resources Code [PRC] 40050, *et seq.*) or AB 939, all cities in California are required to reduce the amount of solid waste disposed in landfills. AB 939 required a reduction of 25 percent by 1995 and 50 percent by 2000. Contracts that include work that will generate solid waste, including C&D debris, have been targeted for participation in source reduction, reuse, and recycling programs. The contractor is urged to manage solid waste generated by the work to divert waste from disposal in landfills (particularly Class III landfills) and maximize source reduction, reuse, and recycling of C&D debris.

Assembly Bill 341

Since the passage of AB 939, diversion rates in California have been reduced to approximately 65 percent, the statewide recycling rate is approximately 50 percent, and the beverage container recycling rate is approximately 80 percent. In 2011, the State passed AB 341, which established a policy goal that a minimum of 75 percent of solid waste must be reduced, recycled, or composted by the year 2020. The State provided the following strategies to achieve that 75 percent goal:

1. Moving organics out of the landfill;
2. Expanding the recycling/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; and
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 revising packaging. With regard to C&D, the State recommended an expansion of California Green Building Code standards that incentivize green building practices and increase diversion of recoverable C&D materials. Current standards require 50 percent waste diversion on construction and some renovation projects, although this may be raised to 65 percent for nonresidential construction in upcoming changes to the standards. The State also recommends promotion of the recovery of C&D materials suitable for reuse, compost or anaerobic digestion before residual wastes are considered for energy recovery.

California Solid Waste Reuse and Recycling Access Act of 1991

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.

Local

Metropolitan Bakersfield General Plan

The policies and implementation measures in the Metropolitan Bakersfield General Plan related to utilities and service systems that are applicable to the proposed project are provided below. The Metropolitan Bakersfield General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development, such as the proposed project. These measures are not listed below, but as stated in Chapter 2, *Introduction*, all policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan are incorporated by reference.

Chapter X: Public Services and Facilities Element

A. General Utility Services

Goals

Goal 2 Coordinate the planning and implementation of program for the provision of public utilities to the planning area.

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

Policies

Policy 3 Require that all new development proposals have an adequate water supply available.

C. Sewer Service

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.

D. Storm Drainage

Goals

Policies

Implementation Measures

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.

F. Solid Waste

Goals

Policies

Policy 1 Comply with, and update as required, the adopted county solid waste management plan.

Groundwater Sustainability Plans

A GSP is a roadmap for how a basin will avoid the adverse effects of groundwater overdraft and achieve balanced levels of groundwater to reach sustainability. As previously discussed 11 different GSAs formed within the subbasins and have since adopted GSPs in accordance with the SGMA. Groundwater levels are managed within a safe basin operating range to protect the long-term sustainability of the Kern County Subbasin and to protect against land subsidence by the KGA GSA, Kern River GSA, and the Cawelo GSA. OMWC's service area lies within areas managed by the KGA GSA, Kern River GSA, and the Cawelo GSA.

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 (i.e., 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 prior to 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 Integrated Regional Water Management Plan

The Tulare Lake Basin portion of Kern County Integrated Regional Water Management Plan (Kern IRWMP) is a collaboration of water suppliers, community and government representatives, environmental groups, businesses and a variety of other interested parties. The Kern IRWMP seeks to preserve the economic and environmental health of Kern County communities through comprehensive and efficient management of its water resources.

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 Kern County.

Kern County—Applicability of NPDES Program for a Project Disturbing 1 Acre or Greater

As closed systems never contact the ocean, many of the waters within Kern County are technically not subject to protective regulations under the federal National Pollutant Discharge Elimination System (NPDES) Program. The Kern County Engineering, Surveying, and Permit Services Department requires the completion of an NPDES applicability form for projects with construction activities disturbing 1 or more acres, and requires the project proponent to provide information about construction activities and to identify whether stormwater 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 State Water Board Construction General Permit Storm Water Pollution Prevention Plan (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 Best Management Practices (BMPs).

Kern County Integrated Waste Management Plan

The Kern County Public Works Department (KCPWD) is required by the State to plan and implement waste management activities and programs in the County unincorporated area to assure compliance with AB 939 and subsequent State mandates. The Kern County Regional Waste Management Plan was approved February 1998 and amended November 2015 by the California Integrated Waste Management Board (now CalRecycle). The 2015 Kern County Regional Waste Management Plan Amendment includes a Waste Characterization Component, Source Reduction Component, Recycling Component, Composting Component, Special Waste Component, Solid Waste Facility Capacity Component, Education and Public Information Component, Funding Component, and Integration Component.

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 prior to project construction for approval by the Kern County Building Department;
- Recycling and/or reuse of a minimum 50 percent of C&D waste; and

- Recycling or reuse of 100 percent of tree stumps, rocks and associated vegetation and soils resulting from land clearing.

4.19.4 Impacts and Mitigation Measures

Methodology

Potential impacts to utilities and service systems associated with construction and operation of the proposed project were evaluated qualitatively and quantitatively using a variety of resources, including multiple online sources and published documents, as well as the *Preliminary Drainage Study* (KHA 2024a), *Water Supply Assessment* (EKI 2023) and *Wastewater Treatment Plant Preliminary Design Report* (KHA 2023b) and provided in Appendix G and Appendix K of this EIR, respectively. In addition, current data obtained from the County and State of California about the capacity of landfills was used to identify potential solid waste impacts. The evaluation of impacts is based on professional judgment, analysis of the County's land use policies, and significance criteria established in *CEQA Guidelines* Appendix G, which the County has determined appropriate for the EIR.

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 utilities and service systems.

A project could have a significant adverse effect on utilities and service systems if it would:

- a. 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;
- b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years;
- c. Result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- d. 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;
- e. 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 stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Water

The project would require water during construction for common construction-related activities, including but not limited to grading, soil compaction, dust suppression, concrete manufacturing, truck wheel washing, equipment washing, and fire safety. Water required during construction would be supplied by the service laterals extended from the existing water line located within Wible Road; water is not expected to require treatment for construction use. A single water tank is proposed for fire suppression volume. Potable water supply would not be required during construction, as restroom facilities would be provided by portable units to be serviced by licensed providers, and bottled potable water would be provided to workers. For these reasons, project construction would not require or result in the construction of any new water facilities that could cause significant environmental effects and, thus, impacts during construction would be less than significant.

During project operation, Cal Water Bakersfield District would supply water to the site via the extension of existing service laterals within Wible Road. According to the project specific WSA, the proposed project would require an annual water demand of 72 acre-feet per year (AFY). This estimated water demand is less than the site's historical water use, which is estimated to range from 117 to 173 AFY. However, as noted in the WSA, historical and existing on-site water demands were met with local groundwater supplies. During project operation, water would be supplied by Cal Water via connections to an existing water line within Wible Road. Therefore, new or expanded facilities and infrastructure would not be required. The estimated water demand for the proposed project would account for 4.7 percent of the proposed net growth for Cal Water's commercial, industrial, and institutional (CII) service. Therefore, while the proposed project is not explicitly included in the Cal Water's 2020 UWMP water demand growth projections, the proposed project's demands are considered to be within the projected growth anticipated by the 2020 UWMP. Total water demands for the Bakersfield District are therefore inclusive of the demands associated with the proposed project. As, the proposed project its accompanying increase in demand is considered planned growth. The proposed project would not require the construction of new or expanded water facilities. Impacts would be less than significant.

Wastewater Treatment

The project applicant proposes to construct an on-site Wastewater Treatment Plant (WWTP), also known as a package plant, to treat wastewater. The facility would occupy approximately 2.4 acres in the northeastern corner of the project site and consist of pumps, membrane reactors, anoxic basins, and aeration basins. As it would solely serve the proposed project, the WWTP would have ample capacity to serve the wastewater needs of the proposed project during construction and operation. Additionally, as outlined in **Mitigation Measure MM 4.19-1** through **MM 4.19-4**, the WWTP and its effluent disposal areas and methods would be required to be positioned and designed in coordination with the KCPWD and subject to approval by the State and County Environmental Health Services Departments and the RWQCB in order to avoid any contamination or pollution from their operations and effluent. No off-site connections to a municipal sewer system exist or are proposed and, thus, impacts during construction and operation would be less than significant.

Stormwater Drainage

The proposed project would install an on-site storm drainage collection system consisting of inlets, underground piping, and retention basins. Runoff would be captured by the on-site storm drainage system and routed to one of three retention basins located throughout the site. From there, runoff would percolate into the soil or evaporate. Additionally, as stated above with, implementation of **Mitigation Measures MM**

4.19-1 and **4.19-2** would ensure that proposed stormwater drainage facilities would be constructed to meet all State and local standards. No off-site connections to a municipal stormwater facility exist or are proposed and, thus, impacts during construction and operation of the proposed project would be less than significant.

Electric Power

During construction, temporary electric power would be provided to the project site by PG&E. The proposed project would include the construction of a substation on-site that would provide electric power to the proposed project. The project operator would coordinate with PG&E as needed for power associated with the substation. Operation of the proposed project would increase on-site electricity demand compared to existing conditions. CalEEMod was used to calculate the approximate annual electricity demand of the proposed project. The proposed project would be required to comply with Title 24 energy efficiency measures and sustainability features of the California Building Standards Code (CBC).

The supply and distribution network within the area surrounding the project site would remain essentially the same as exists currently, with the exception of on-site improvements to add a substation to serve the proposed project due. These on-site improvements would connect to the existing infrastructure and provide electrical service to the proposed project. There are sufficient planned electricity supplies in the PG&E service area for estimated net increases in energy demands. With implementation of **Mitigation Measure MM 4.19-5**, the project proponent would be required to 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. Accordingly, the proposed project would not increase electrical demand beyond existing projections associated with planned for growth from the local electricity provider. Additionally, the project site is within a developed service area with existing demand.

With the implementation of **Mitigation Measure MM 4.19-5**, energy demand for the proposed project would be less than significant. Moreover, the proposed project would not require the service provider to construct any physical improvements related to the provision of electricity service. As such, operational impacts would be less than significant.

Natural Gas

Natural gas would not be required for the proposed project. Nonetheless, the project proponent would be required to comply with **Mitigation Measures MM 4.19-6**, which requires coordination between the operators and PG&E to determine 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 PG&E to fully mitigate impacts to natural gas services and facilities, as needed as project construction progresses. As such, the proposed project would not require natural gas service or connections, and impacts would be less than significant.

Telecommunications

No existing telecommunication facilities are located on-site. Cellular or satellite communication technology may be used for both internet and telephone systems during construction and operation. Alternatively, a communication line would be connected to existing service laterals and would be undergrounded at the

project site. No off-site telecommunications systems would be constructed and, therefore, construction and operational impacts would be less than significant.

Mitigation Measures

- MM 4.19-1** All special equipment for the proposed project, such as package treatment plants, their appurtenances, and their effluent disposal areas and methods shall be designed, located, and constructed in coordination with the KCPWD, so as to preclude contamination, pollution, nuisance, and structural and mechanical instability.
- MM 4.19-2** Proposals and plans for package treatment and disposal facilities shall be subject to the review and approval of:
1. The State and County Environmental Health Services Departments for design and contamination aspects;
 2. The Regional Water Quality Control Board for elements of pollution and nuisance; and
 3. The Kern County Public Works Department (KCPWD) for structural and mechanical integrity. Special structures, such as pump stations, pressure lines and sags, etc. shall be subject to the approval of the KCPWD and the maintaining District.
- MM 4.19-3** The new wastewater package plant facility shall be constructed according to State specifications, with coordination of Kern County Public Works and Kern County Environmental Health Services Departments and shall be operated in such a way as to not contaminate the underlying unconfined aquifer.
- MM 4.19-4** All facilities of the water system shall be designed and constructed to comply with Kern County Development Standards and approved by the Kern County Public Works Department (KCPWD).
- MM 4.19-5** 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 4.19-6** 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 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 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 Measures MM 4.19-1** through **MM 4.19-6**, impacts would be less than significant.

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.

During operation, the proposed project would have an annual water demand of 72 AFY, which is significantly less than the site's estimated historical water use ranging from 117 to 173 AFY. Cal Water's 2020 Urban Water Management Plan projects that the Bakersfield District (which includes the proposed project) would demand approximately 70,314 acre-feet of water annually during normal years, 71,592 acre-feet during single dry years, and 72,382 acre-feet during multiple dry years in 2045. The estimated water demand for the proposed project would account for 4.7 percent of the proposed net growth for Cal Water's CII service. As such, water demand of the proposed project would be considered nominal compared to the overall projected water demand for the Bakersfield District. Additionally, Cal Water Bakersfield District is projected to have sufficient water supply for projected normal, dry, and multiple dry years through 2045 (EKI 2023). With implementation of **Mitigation Measure 4.19-7**, the project proponent would be required to disclose to the County of Kern information on any groundwater that would be used such that coordination between the project proponent and the appropriate GSA and Water Agency can be facilitated and adequate response measures can be facilitated during the permit process. **Mitigation Measure MM 4.19-8** would also be implemented, requiring all facilities have water meters installed resulting in additional oversight for annual water usage on-site. Finally, the proposed project would use treated wastewater from the on-site package plant for landscape irrigation, thereby reducing the demand for potable water. Therefore, the proposed project's demands are considered to be within the projected growth anticipated by the 2020 UWMP. As such, sufficient water supply would be available to serve the proposed project during normal, dry and multiple dry years, and no additional water supplies would need to be secured. Thus, impacts on a project level would be less than significant. 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, a determination of the cumulative impacts is discussed further below.

Mitigation Measures

MM 4.19-7 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 (GSAs) and the Kern County Water Agency (KCWA) 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 4.19-8 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 landowners 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

With implementation of **Mitigation Measures MM 4.19-7** and **MM 4.19-8**, impacts would be less than significant.

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.

The project-specific *Wastewater Treatment Plant Preliminary Design Report* estimated that a total of 1,830 employees would be located on-site daily during the peak season and would generate 30 gallons per capita per day (gpcpd). As such, the expected wastewater generation rate of the proposed project would be 54,900 gallons per day (GPD). The WWTP would be permitted and regulated by the Central Valley RWQCB. Since the WWTP will be sized for 54,900 GPD, it can enroll under the Small Domestic Permit (2014-0153) which regulates wastewater facilities that discharge a monthly average of 100,000 GPD of domestic wastewater or less. Because the proposed WWTP would be sized and would solely serve the proposed project, the proposed project would not require service by the local wastewater treatment provider and therefore would not exceed the capacity of the supplier. As such, no impacts would occur.

Mitigation Measures

No mitigation would be required.

Level of Significance

No impacts would occur.

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.

Construction

Using a standard nonresidential construction waste generation rate of 3.89 pounds/square foot, construction of the proposed project would generate 1,778 cubic yards of waste (653,442 square feet x 3.89 pounds/square feet = 2,541,889 pounds; 2,541,889 pounds / 2,000 pounds/ton = 1,270 tons; 1,270 x 1.4 = 1,778 cubic yards). The Metropolitan Bakersfield (Bena) Landfill has 32.8 million cubic yards of remaining capacity and, thus, can accommodate the proposed project's construction solid waste generation. Furthermore, C&D debris recycling would reduce the volume of construction waste that is landfilled. Construction impacts would be less than significant.

Operation

Using a standard nonresidential operational waste generation rate of 1.42 pounds/100 square feet/day, operation of the proposed project would generate 1,209.6 cubic yards of waste per year (653,442 square feet x 1.42 pounds/100 square feet/ day x 365 days/year x 1 ton/2,000 pounds / 1.4 = 1,209.6 cubic yards/year)(CalRecycle 2019b). The Bakersfield Metropolitan SLF has 32.8 million cubic yards of

remaining capacity and, thus, can accommodate the proposed project's operational solid waste generation. Furthermore, operational recycling practices would reduce the volume of operational waste that is landfilled. Impacts would be further reduced with implementation of **Mitigation Measure MM 4.19-9**, which includes specific requirements related to debris and waste. Therefore, impacts would be less than significant.

Mitigation Measures

MM 4.19-9 During construction and operation, debris and waste generated shall be recycled. An on-site recycling coordinator shall be designated by the project proponent to facilitate recycling of all construction waste through coordination with contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes. The on-site recycling coordinator shall also be responsible for ensuring that wastes requiring special disposal are handled according to State and County regulations that are in effect at the time of disposal. The name and phone number of the coordinator shall be provided to the Kern County Planning and Natural Resources Department prior to issuance of building permits.

Level of Significance After Mitigation

With implementation of **Mitigation Measure MM 4.19-9**, impacts would be less than significant.

Impact 4.19-5: The project would comply with federal, State, and local management and reduction statutes and regulations related to solid waste.

The proposed project would generate solid waste during construction, operation and maintenance. Common construction waste may include metals, masonry, plastic pipes, rocks, dirt, cardboard, or green waste related to land development. The 1989 California Integrated Waste Management Act (AB 939) requires Kern County to attain specific waste diversion goals. In addition, 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 proposed project. In 2011, the State passed AB 341, which established a policy goal that a minimum of 75 percent of solid waste must be reduced, recycled, or composted by the year 2020. 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 and/or reuse a minimum 65 percent C&D waste; and
- Recycle or reuse 100 percent 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. Implementation of **Mitigation Measure MM 4.19-9** would ensure compliance with all waste diversion and recycling requirements by requiring recycling during construction, operation, and decommissioning of the project. The proposed project would be required to comply with all federal, State, and local statutes and regulations related to the handling and disposal of solid waste. Therefore, implementation of the proposed project would result in less than significant impacts.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.19-9** would be required.

Level of Significance After Mitigation

With implementation of the **Mitigation Measure MM 4.19-9**, impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

Past, present, or reasonably foreseeable future projects within the southern San Joaquin Valley are listed in **Table 3-5** in **Chapter 3, Project Description**, of this Draft EIR. The geographic scope for impacts to utilities and service systems includes projects within the service area for each of the utility providers described above, which includes demands on water supply, stormwater drainage, and solid waste disposal. The scope for impacts to water would be the Cal Water Bakersfield District and wastewater would be limited to the project site. The scope for impacts to stormwater drainage would be the project site and the scope for impacts to solid waste disposal includes projects that rely on the same solid waste disposal facilities.

This analysis evaluates whether the impacts related to the proposed project, together with the impacts of other development, would result in a cumulatively significant impact. It then considers whether the incremental contribution of the proposed project to this cumulative impact would be considerable. Both conditions must apply in order for a project's cumulative effects to rise to the level of significance. Impacts of the proposed project would be cumulatively considerable if the incremental effects of the proposed project when combined with other past, present, or reasonably foreseeable projects would result in a significant cumulative effect.

Water Supply

Cal Water would have the ability to meet the City's projected demands during normal, dry, and multiple-dry year scenarios. Thus, there is no cumulative impact related to water supply. Moreover, as described under **Impact 4.19-2**, the proposed project would result in a net reduction in water use on-site relative to existing conditions. Accordingly, the proposed project would not have an adverse incremental contribution to the already significant impact. Furthermore, with the implementation of **Mitigation Measures MM 4.19-7** and **MM 4.19-8**, any groundwater pumping on-site would be required to come from wells equipped with water meters, and the appropriate GSAs and the KCWA would be notified. 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.

Wastewater

With regard to wastewater, the proposed project is located in an area with no wastewater treatment provider and therefore, the proposed project would be served by a private wastewater collection and treatment system located on-site to accommodate the wastewater needs. Accordingly, the geographic context for evaluating cumulative impacts related to wastewater is limited to the project site and there is no cumulative impact.

Moreover, the private system is designed to fully accommodate the proposed project. With the implementation of **Mitigation Measures MM 4.19-1** through **MM 4.19-4**, the private system would be designed in accordance with all State and local regulations and would be subject to approval by the Kern County Public Works and Kern County Environmental Health Services Division, as well as the RWQCB. Therefore, the proposed project would not substantially contribute to any cumulative impact on regional wastewater treatment facilities or capacity. There is no cumulative impact.

Stormwater Drainage

As described above, no constructed stormwater drainage systems are present on-site and stormwater on the project site either percolates on-site or drains off-site by way of existing natural drainages. Parcels within the County are required to adhere to 100 percent stormwater retention per County requirements and all applicable standards. As such, the proposed project would install an on-site storm drainage system consisting of inlets, underground piping, and basins. Runoff would drain to one of three retention basins located throughout 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. As mentioned above, implementation of **Mitigation Measures MM 4.19-1** and **4.19-2** would ensure that proposed stormwater drainage facilities would be constructed to meet all State and local standards. Therefore, the cumulative impacts to stormwater drainage are less than significant, and the proposed project would not contribute to cumulatively considerable impacts related to stormwater drainage facilities.

Electricity

The proposed project would include construction of a substation on-site to provide electric power to the project. The proposed substation would connect to existing infrastructure and operation of the proposed project would be consistent with planned for electricity demand. Nonetheless, the project proponent would be required to 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, in compliance with **Mitigation Measure MM 4.19-5**. 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. As such, the proposed project would not contribute to a cumulatively considerable impact related to electricity demand and facilities.

Natural Gas

The proposed project does not include the use of natural gas facilities on the project site. Nonetheless, the project proponent would be required to comply with **Mitigation Measures MM 4.19-6**, which requires coordination between the operators and PG&E to determine any potential natural gas service or facility issues needed to adequately accommodate the proposed project. Therefore, the proposed project would not contribute to a cumulatively considerable impact related to natural gas demand and facilities.

Telecommunications

The proposed project in combination with cumulative projects would increase demand for telecommunication facilities. However, demand associated with energy projects 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 proposed project would generate construction and operational solid waste. The Metropolitan Bakersfield (Bena) Landfill has more than 32 million cubic feet of remaining capacity. To ensure that the proposed project reduces the amount of waste sent to the landfill, implementation of **Mitigation Measure MM 4.19-9** requires that debris and waste generated shall be recycled to the extent feasible, and a recycling coordinator be designated by the project proponent to facilitate recycling efforts. Surrounding projects would also be required to comply with all applicable ordinances in place designed to reduce the amount of solid waste disposed in landfills. Therefore, the proposed project would not contribute to a cumulatively considerable impact related to landfill capacity exceedance.

In conclusion, the proposed project would not have a significant cumulative impact on public utilities, with exception to water supply as discussed in **Impact 4.19-2** and **Section 4.10, Hydrology and Water Quality**, despite implementation of **Mitigation Measure MM 4.19-1**. Furthermore, because of the stormwater drainage, wastewater, and electric power facilities proposed on the project site, the proposed project would result in a beneficial impact on utility services and offset future demand on energy service providers.

Mitigation Measures

Implementation of **Mitigation Measure MM 4.19-1** through **MM 4.19-9** would be required.

Level of Significance

Despite implementation of **Mitigation Measure MM 4.19-1**, cumulative impacts would be significant and unavoidable for water supply. Cumulative impacts would be less than significant for Wastewater, Stormwater Drainage, Solid Waste, Landfills, Electricity, Natural Gas and Telecommunications with implementation of **Mitigation Measures MM 4.19-1** through **MM 4.19-9**.

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 for wildland wildfire. The section includes the physical and regulatory setting for the proposed project, the methods used in evaluating these potential impacts, the criteria used to evaluate the significance of potential impacts, and an analysis of potential impacts from wildfire. The analysis in this section is based, in part, on review of the proposed project plans, information from the California Department of Forestry and Fire Protection (CAL FIRE), CAL FIRE Kern County Fire Hazard Severity Zone (FHSZ) Maps, the Metropolitan Bakersfield General Plan, the Biological Resources Assessment prepared by FirstCarbon Solutions (FCS) provided in Appendix C, and the Phase I Environmental Site Assessment (Geosyntec Consultants 2023) provided in Appendix F of this Draft EIR.

4.20.2 Environmental Setting

Site Characteristics and Fire Environment

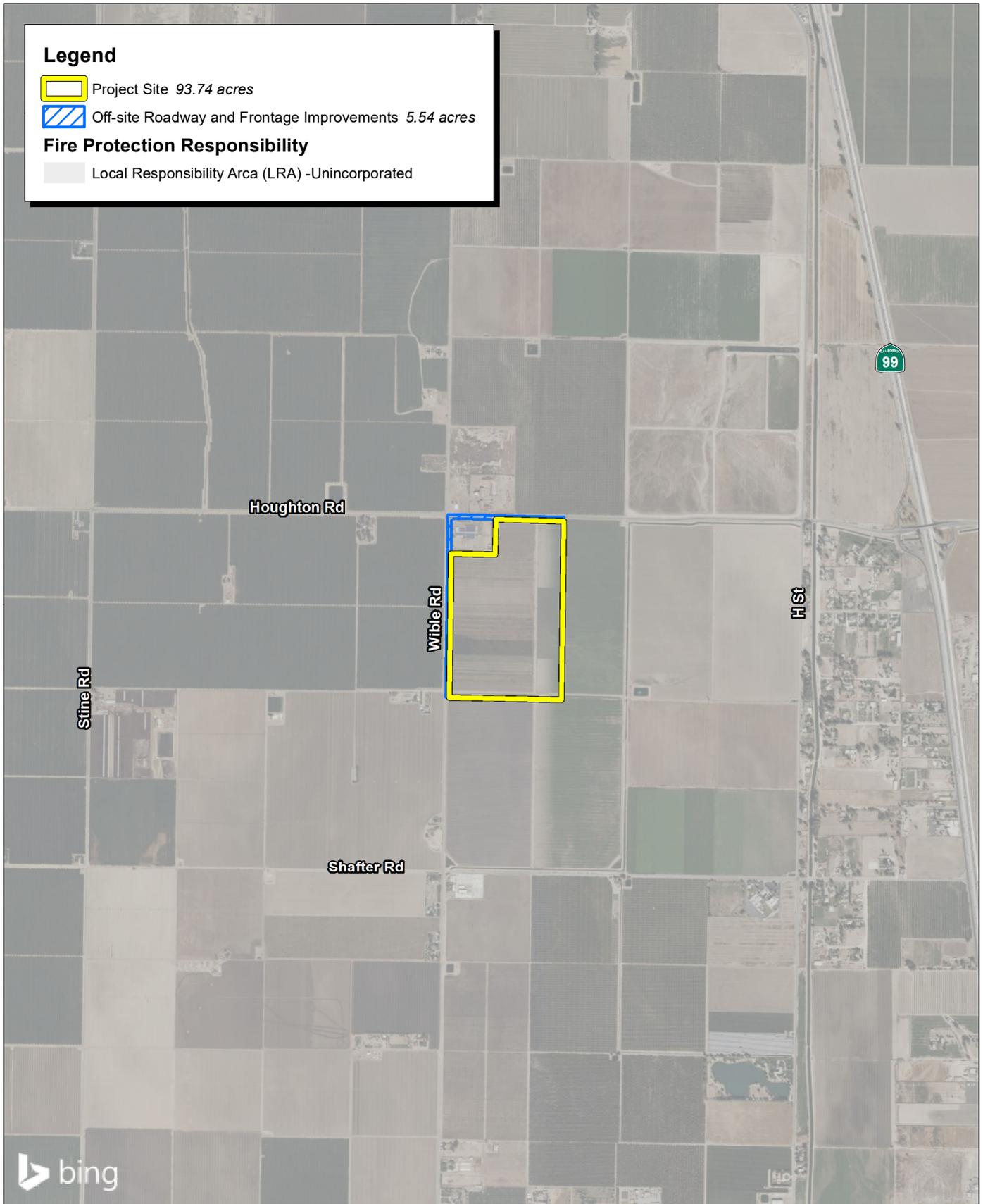
The project site is currently used as an active agricultural field for farming corn, beets, and turnips. The site has been historically covered by row crops of cotton, corn, and wheat. The site currently contains carrot fields and almond orchards. The surrounding land is used for agricultural purposes. Martin Feed Inc., an agricultural processing facility, is located west of the project site at the corner of Wible Road and Houghton Road.

CAL FIRE identifies FHSZs based on factors such as fuel, slope, and fire weather to identify the degree of fire hazard throughout California (i.e., 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, are of greater concern. According to CAL FIRE, the project site is not located within a State Responsibility Area (SRA), as shown in **Figure 4.20-1, Fire Hazard Severity Zones for State Responsibility Areas** (CAL FIRE 2022). The Kern County FHSZ Maps for the Local Responsibility Area (LRA), as shown in **Figure 4.20-2, Fire Hazard Severity Zones for Local Responsibility Areas**, identify the project site as LRA Unzoned (CAL FIRE 2007). Given this designation, the project site is outside of areas identified by CAL FIRE as having substantial or very high risk.

The land immediately east, west, and south of the project site consists of agricultural uses with a mix of row crops and orchards.

The land surrounding the project site is categorized as LRA Unzoned (see **Figures 4.20-1, Fire Hazard Severity Zones for State Responsibility Areas** and **4.20-2, Fire Hazard Severity Zones for Local Responsibility Areas**). The nearest Very High Fire Hazard Severity Zone (VHFHSZ) in an SRA is located approximately 17 miles east of the project site. The nearest VHFHSZ in an LRA is located over 25 miles south of the project site.

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Legend

- Project Site 93.74 acres
- Off-site Roadway and Frontage Improvements 5.54 acres

Fire Protection Responsibility

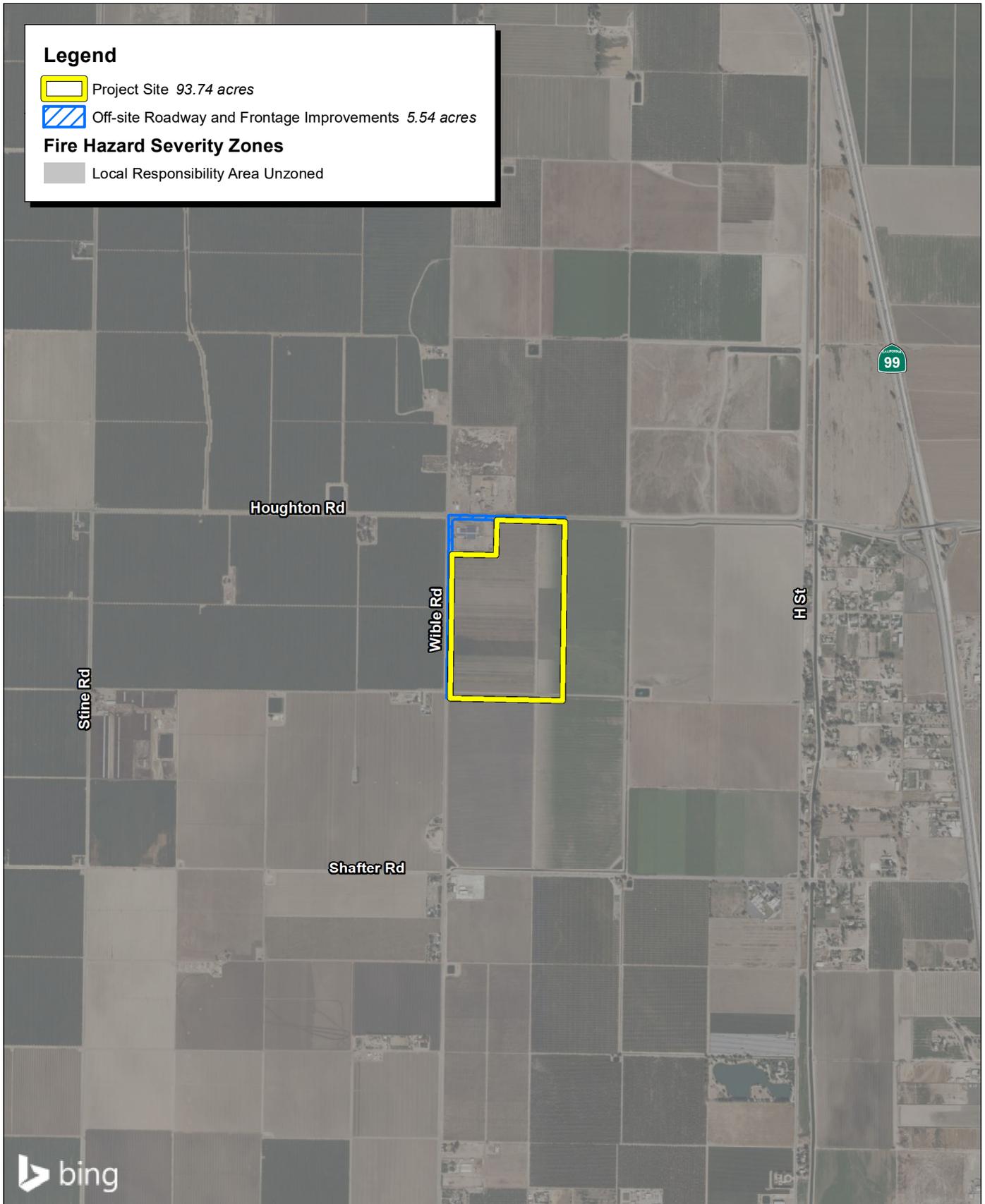
- Local Responsibility Arca (LRA) -Unincorporated

Source: Bing Aerial Imagery. CalFire FRAP Kern County.



Figure 4.20-1
Fire Hazard Severity Zones for
State Responsibility Areas

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Legend

- Project Site 93.74 acres
- Off-site Roadway and Frontage Improvements 5.54 acres

Fire Hazard Severity Zones

- Local Responsibility Area Unzoned

Source: Bing Aerial Imagery. CalFire FRAP Kern County.



Figure 4.20-2
Fire Hazard Severity Zones for
Local Responsibility Areas

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Regional Wildfire Conditions

Kern County (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 eastern 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 which influences the spread of wildfire (Kern County Fire Department [KCFD] Office of Emergency Services 2020).

Vegetation (Fuels)

The San Joaquin Valley Floristic Region is characterized by dry flora which covers the broad plain at the head of the San Joaquin Valley in the County. The regional flora is composed largely of fast-growing winter annuals adapted to low-precipitation conditions (Kern County General Plan EIR 2004). Regional vegetation on the valley floor is predominated by modern cultigens and other non-native species, such as Russian thistle (*Salsola tragus*) (tumbleweed) and grasses, but also includes cheatgrass (*Bromus tectorum*) and doveweed (*Murdannia nudiflora*).

The vast majority of the project site (83.71 acres) consists of fallow fields, as described in Section 4.4, Biological Resources. Approximately 0.22 acre of carrot fields can be found within the off-site roadway and frontage improvement areas along Houghton Road and Wible Road. Dirt access roads are located near the boundary of the southern portion of the project site, separating the fallow land from current agricultural uses within the eastern portion of the site, and cover approximately 3.90 acres of the site and 1.28 acres of the off-site improvement areas. Small areas of non-native grasses and forbs were observed on the edges of the roads, including horn plantain (*Plantago coronopus*), Canada horseweed (*Erigeron canadensis*), beets (*Beta vulgaris*), and puncture vine (*Tribulus terrestris*). Bare areas to the north and southwest of the site contain sparse vegetation such as Canada horseweed and puncture vine.

Approximately 2.67 acres of urban/developed land can be found within the off-site roadway and frontage improvements areas along Houghton Road and Wible Road.

Fire History

Fire history information can provide an understanding of fire frequency, fire type, most vulnerable project areas, and significant ignition sources. According to the Kern County Community Wildfire Protection Plan completed in 2022, which assessed fire history data from 1898 through 2021, most of the fires within the County have been smaller than 100 acres and approximately 10 percent of all fires have been larger than 300 acres. Notably, the French Fire in 2021 burned 27,85 acres near Lake Isabella. Other large, destructive wildfires in recent history include the Cedar, Erskine, Breckenridge Complex and Comanche Fires, all of which burned areas exceeding 25,000 acres. Fires typically occur between May and September when temperatures are high and dry winds are frequent (SWCA 2022). CAL FIRE's Incident Map shows wildfire incidents back through the 2016 wildfire season (CAL FIRE 2023a), and CAL FIRE's Fire and Resource Assessment Program (FRAP) provides a map of fire perimeters as far back as the 1950s (CAL FIRE 2023b). Based on a review of these maps, no fires in the recorded history have burned across the project site.

4.20.3 Regulatory Setting

Federal

There are no applicable federal regulations for this issue area.

State

2022 California Fire Code

The 2022 California Fire Code (Title 24, Part 9, of the California Code of Regulations [CCR]) 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 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. The Fire Code includes regulations regarding fire-resistance-rated construction, fire protection systems such as alarm and sprinkler systems, 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 Standard Code, Chapter 7A

Chapter 7 of the 2022 California Building Standards Code (CBC) details the materials, systems, and/or assemblies used in the exterior design and construction of new buildings located 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 a “Fire Hazard Severity Zone” in accordance with the Public Resources Code Sections 4201–4204 and Government Code Sections 51175–51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires. The CBC 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. The County adopted the CBC into Chapter 17 of the Kern County Building Code through Ordinance No. G-8866.

Public Resources Code Sections 4291–4299

California Public Resources Code Sections 4291–4299 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 is 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. California Public Resources Code Sections 4291–4299 applies to both high fire threat districts, as determined by the California Public Utilities Commission (CPUC) pursuant to its rulemaking authority, and SRAs. Additionally, the Public Resources Code outlines infraction fees, certification, and compliance procedures applicable with State and local building standards, including those described in Government Code Section 51189(b).

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 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 are also the City of Bakersfield adopted Sphere of Influence (SOI). The policies, goals, and implementation measures in the Metropolitan Bakersfield General Plan for wildfire applicable to the proposed project are provided below.

Chapter VII: Safety/Public Safety

Goals

Goal 1 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 2 Require discretionary projects to assess impacts on police and fire services and facilities.

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 and the 2021 International Fire Code with some amendments. The purpose of the Kern County 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 and/or explosion due to handling of dangerous and hazardous materials, and conditions hazardous to life or property in the occupancy and use of buildings and premises; the operation, installation, construction, and location of attendant equipment; and the installation and maintenance of adequate means of egress, and providing for the issuance of permits and collection of fees therefore.

Kern County Fire Department 2021 Strategic Fire Plan

The KCFD Unit Strategic Fire Plan, updated in April 2022, is the most current document that assesses the wildland fire situation throughout the SRA within the County. Similar to other plans, this document includes

stakeholder contributions and priorities and identifies strategic targets for pre-fire solutions as defined by the people who live and work within the local fire problem. The plan provides for a comprehensive analysis of fire hazards, assets at risk, and level of services to systematically assess the existing levels of wildland protection services and identifies high risk and high-value areas that are potential locations for costly and damaging wildfires. The plan gives an overview of KCFD Battalions and ranks these areas in terms of priority needs as well as identifies the areas of the SRA. According to the plan, 69 percent of Kern County areas are within a SRA. The County is broken up into six different fuel management areas, Tehachapi, Western Kern, North Kern, Mount Pinos Communities, Valley/Foothill, and Kern River Valley. The project site is located within Battalion 5 (Mount Pinos Communities), which is not within an FHSZ within the Mount Pinos Communities fire plan management area (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 (HFRA). The CWPP, adopted in March 2022, 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 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 and 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).

2020 Kern County Multi-Jurisdictional Hazard Mitigation Plan

The 2020 update to the Kern County Multi-Jurisdictional Hazard Mitigation Plan (Kern MJHMP) was approved by the Federal Emergency Management Agency (FEMA) on April 9, 2021. The purpose of the Kern MJHMP is to guide County and City officials, Special District Managers, School District Administrators, and Water and Wastewater District Managers in protecting people and property within the County from the impacts of natural disasters and hazard events. In compliance with the Disaster Mitigation Act of 2000 (DMA 2000), the MJHMP must be updated every five years (KCFD Office of Emergency Services 2020).

4.20.4 Impacts and Mitigation Measures

Methodology

Wildfire impacts are considered on the basis of the following criteria: (1) off-site wildland fires that could result due to the proposed project and (2) on-site generated combustion that could affect surrounding areas. The proposed project's potential impacts associated with wildfires have been evaluated using a variety of resources, including CAL FIRE maps showing FHSZs, past fire season incident maps, vegetation data from the Biological Resources Assessment (FCS 2023b) and the Phase I Environmental Site Assessment (Geosyntec Consultants, 2023), project location maps, and project characteristics. Using the aforementioned resources and professional judgment, impacts were analyzed according to 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 CEQA Guidelines Appendix G, 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 VHFHSZs and if the project would:

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan;
- b) 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;
- c) 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; or
- d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire instability, or drainage changes.

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 a high FHSZ and is not anticipated to physically impede the existing emergency response plans, emergency vehicle access, or personnel access to the site. In addition, the project site is located in a rural, sparsely developed area with a limited population. The project site is not located along an identified emergency evacuation route and is not identified in any adopted emergency evacuation plan. Furthermore, in compliance with the most recent and applicable Fire Code and CBC requirements, construction managers and personnel would be trained in fire prevention and emergency response. Fire suppression equipment specific to construction would be maintained on-site. Finally, proposed construction and operation of the proposed project 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. Therefore, the proposed project would not conflict with the implementation of, or cause physical interference with, an adopted emergency response plan or emergency evacuation plan and impacts would be less than significant.

Mitigation Measures

No mitigation would be required.

Level of Significance

Impacts would be 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.

Slope and wind speed can influence the spread of fires. Upslope topography eventually increases the spread rate of the fire in all fuel beds over flat conditions (International Journal of Wildland Fire 2002, 2010). The project site is relatively flat, with an elevation of approximately 330 feet above mean sea level (AMSL), and a gradually decreasing topographic gradient to the south. The proposed project would introduce temporary on-site employees during construction and approximately 915 on-site employees per shift (two shifts, for a total of 1,830 employees) in peak season and approximately 732 on-site employees per shift (two shifts for a total of 1,464 employees) in non-peak season during operation. The project site is designated as LRA Unzoned, a designation which is applied to areas with low fire frequency. Therefore, the potential for wildfire on the project site is not considered high.

During construction, the proposed project 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. Given the low potential for fire, the project site's flat topography, and adherence to applicable existing regulations, codes and ordinances, impacts would be less than significant.

Once operational, employees would be on-site daily. Because of the nature of the proposed project, employees would be on-site 24 hours a day, 7 days a week. Although employees would be on-site 24 hours a day, 7 days a week, the proposed project would comply with the 2022 California Fire Code and Kern County Fire Code to ensure special fire protection. In addition, implementation of the proposed project would require coordination with the KCFD for review and approval of project design, as well as access to adequate water supplies for both domestic and fire water to ensure fire protection services by the KCFD are feasible. Furthermore, the project site is not located adjacent to populated communities. Therefore, the proposed project would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire due to slope, prevailing winds, and other factors, and impacts would be less than significant.

Furthermore, construction and operational impacts would be further reduced with implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1**. As discussed in **Section 4.9, Hazards and Hazardous Materials**, as well as **Section 4.15, Public Services**, the project proponent shall develop and implement a Fire Safety Plan that contains notification procedures and emergency fire precautions consistent with the

2022 California Fire Code and Kern County Fire Code for use during construction and operation, per implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1**. Under this Fire Safety Plan, construction and maintenance personnel, and employees would be trained and equipped to extinguish small fires, thus reducing the risk of fire on-site. When necessary, as outlined in the Fire Safety Plan, notification procedures would be implemented to ensure a safe and orderly response to wildfire. Thus, with implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1**, potential impacts related to spread of a wildfire would be further reduced. The proposed project is not anticipated to expose future occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire due to slope, prevailing winds, and other factors during construction. As such, impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**) and **MM 4.15-1** (**Section 4.15, Public Services**) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1**, impacts would be 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.

New internal roads would be constructed connecting to Wible Road and Houghton Road to serve as the access road from the existing road network to the proposed project. All road improvements would be completed in accordance with California Department of Transportation (Caltrans) and/or County code and regulations. The new perimeter road would be cleared and compacted for equipment and emergency vehicle travel and access to the project site. The project site access road would remain in place for ongoing operations and maintenance activities after construction is completed. All new roads would comply with development requirements for emergency access and, therefore, would not exacerbate fire risk that could result in temporary or ongoing impacts to the environment.

Furthermore, the proposed project would extend service laterals for potable water from an existing water line located within Wible Road provided by California Water Service (Cal Water). Electricity and natural gas service would be provided by Pacific Gas and Electric Company (PG&E) through the extension of service laterals from existing facilities along Houghton Road and Wible Road. Furthermore, a new substation would be located on-site and would provide power generation for the proposed project.

Fires in rural agricultural areas could be caused by natural resources, such as lightning, or vehicles. The use of delivery vehicles could increase fire risk due to driving heated mufflers over vegetated areas. Improvements to existing access roads would not be placed within a high fire hazard zone, and vegetation would be cleared to reduce the available fuel load and creates a defensible space; therefore, the proposed project would not result in increased fire risks that could result in temporary or ongoing impacts to the environment. Additionally, as discussed in **Section 4.9, Hazards and Hazardous Materials**, as well as **Section 4.15, Public Services**, the project applicant shall develop and implement a Fire Safety Plan that contains notification procedures and emergency fire precautions consistent with the 2022 California Fire

Code and Kern County Fire Code for use during construction and operation, per implementation of **Mitigation Measure MM 4.15-1**. Implementation of this plan would ensure a safe and orderly response to wildfire. Therefore, potential impacts related to installation or maintenance of associated infrastructure would be reduced and, thus, impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**) and **MM 4.15-1** (**Section 4.15, Public Services**) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.9-13** and **MM 4.15-1**, impacts would be 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 instability, or drainage changes.

Development of the proposed project would maintain the existing drainage pattern. The proposed project would require implementation of a Storm Water Pollution Prevention Plan (SWPPP) in accordance with **Mitigation Measures MM 4.7-8** (see **Section 4.7, Geology and Soils**) and **MM 4.10-1** (**Section 4.10, Hydrology and Water Quality**), which would include erosion and sediment control Best Management Practices (BMPs) during construction, thereby reducing the potential of erosion and siltation during construction and would control potential flooding events that could occur during construction.

Additionally, the proposed new impervious surfaces would generate additional stormwater runoff on-site, albeit in minor quantities compared to existing conditions. However, this could exacerbate potential erosion and sedimentation on-site or downstream. As discussed in **Section 4.10, Hydrology and Water Quality**, Kern County requires development of a drainage plan with the site development grading permit, which will manage stormwater and reduce the risk for off-site impacts due to erosion and impacts on water quality, as implemented by **Mitigation Measure MM 4.10-2**. Design measures are intended to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding on- or off-site. The drainage plan would include Engineer recommendations meant to offset increases in stormwater runoff and would incorporate them into the project design. Since the project site is entirely undeveloped under existing conditions, the proposed project would result in a net increase in impervious surfaces overall as a result of constructing equipment foundations, wastewater and substation facilities foundations. Compliance with County requirements for a drainage plan, preparation of a SWPPP, and implementation of **Mitigation Measures MM 4.7-8, MM 4.10-1** and **MM 4.10-2** would minimize potential increases in runoff and ensure that the proposed detention basins and other stormwater management features are implemented to minimize erosion and sedimentation.

The project site is located at the southern end of the San Joaquin Valley and on an uneven plain consisting of alluvial fans, debris flows, and over-bank deposits. The Kern Island Canal is approximately 0.7 miles east of the project site. The project site is not located within a flood hazard zone mapped by FEMA. Based on the fire history immediately surrounding the site, LRA Unzoned designation, soil types, and surface hydrology, there is a low potential for the project site to be at risk of post-fire instability or drainage changes.

While the proposed project would introduce new structures to the project site, the structures would not be placed in a highly flammable landscape. Furthermore, with the implementation of **Mitigation Measures MM 4.7-8**, **MM 4.10-1**, and **MM 4.10-2**, any potential impacts from runoff and erosion would be minimized. Therefore, the proposed project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.7-8** (see **Section 4.7, *Geology and Soils***), **MM 4.10-1** and **MM 4.10-2** (**Section 4.10, *Hydrology and Water Quality***) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.7-8**, **MM 4.10-1**, and **MM 4.10-2**, impacts would be less than significant.

Cumulative Setting, Impacts, and Mitigation Measures

The geographic scope for cumulative wildfire impacts is considered the southern San Joaquin Valley. This geographic scope was selected because the land within the region possesses relatively similar uses and environment, including agriculture, highway commercial, rural residential, mineral extraction, industrial uses, and undeveloped grasslands. Within this geographic scope, State Route (SR) 99 and Interstate 5 (I-5) run generally north to south. SR-99 is a six-lane highway with three lanes for northbound traffic and three lanes for southbound traffic. Additionally, I-5 is a four-lane highway with two lanes for northbound traffic and two lanes for southbound traffic. Both I-5 and SR-99 act as manmade fire breaks—a gap in vegetation and other fuels—which may stop or slow the spread of wildfires. The project site is located east of I-5 and west of SR-99.

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 Code and CBC requirements and prior to the issuance of any building permits. Furthermore, all cumulative projects would be subject to similar fire protection development standards and be required to comply with County ordinances and General Plan policies to assist in protecting life and property in the event of a wildfire. In addition, all cumulative projects would be required to comply with and be consistent with existing emergency response plans. Implementation of Countywide plans, including the KCFD Strategic Fire plan, the Kern County CWPP, the Kern County EOP and the Kern MJHMP, in nearby cities and throughout the adjacent unincorporated areas would reduce cumulative impacts related to wildfire. Furthermore, similar to the proposed project, other cumulative projects would be required to comply with existing codes and ordinances related to maintenance of mechanical equipment, handling and storage of flammable materials, and the cleanup of spills of flammable materials. For these reasons, cumulative impacts with respect to wildfire hazards would be less than significant.

With regard to cumulative impacts related to exposure of project occupants to pollutant concentrations from a wildfire, while the proposed project is not within an LRA, SRA, or Federal Responsibility Area (FRA) identified as having substantial or very high fire risk, some related projects in the area may be located within these areas. Similar to the proposed project, all related projects would be required to implement a Fire

Safety Plan similar to the one required by **Mitigation Measures MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**) and **MM 4.15-1** (see **Section 4.15, Public Services**) and would be required to implement building and landscape design features in accordance with the Fire Code and CBC to reduce wildfire risk and exposure of occupants to pollutant concentrations from a wildfire. Adherence to the Fire Code and Building Code requirements would minimize potential impacts related to exposure to and the uncontrolled spread of wildfire. Accordingly, cumulative impacts would be considered less than significant. As concluded in the discussion of project impacts above, the proposed 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. Nevertheless, given the location in a rural area and limited infrastructure as discussed above, the proposed project and related projects have the potential to result in a cumulative impact related to exposure of project occupants to pollutant concentrations from a wildfire. Cumulative projects would be required to adhere to similar requirements, thus reducing impacts associated with exposure to pollutant concentrations and the uncontrolled spread of wildfire. Therefore, cumulative impacts would be less than significant.

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 to the environment. These projects would be reviewed by the County for land use and zoning consistency and compliance with applicable requirements, and potentially analyzed for environmental impacts. The placement of infrastructure would adhere to all fire codes to minimize the potential fire risk such as siting and design. The proposed project would include the construction of a new substation on the northeastern corner and internal roads. While the potential for fire is considered low, **Mitigation Measures MM 4.9-13** and **MM 4.15-1** would be implemented to ensure that a Fire Safety Plan is prepared that contains notification procedures and emergency fire precautions consistent with the 2022 California Fire Code and Kern County Fire Code for use during construction and operation.

Some related projects could be proposed in areas that could expose people or structures to risks from downslope or downstream flooding or landslides as a result of post-fire instability. Based on the recent fire events in California, all projects would be required to adhere to Kern County's zoning and land use designations and codes, State and local fire codes, and regulations associated with drainage and site stability. These regulations, policies, and codes would reduce the potential for exposing people or structures to risks from downslope or downstream flooding or landslides as a result of post-fire instability. Each project would require site-specific hydrology and drainage studies for effective drainage design. As concluded in the discussion of project impacts above, with the implementation of **Mitigation Measures MM 4.7-8** (see **Section 4.7, Geology and Soils**) and **MM 4.10-1 (Section 4.10, Hydrology and Water Quality)**, the proposed project would not expose people or structures to significant risks due to post-fire slope instability or drainage changes and would have a less than significant impact. Nevertheless, given the location in a rural area and limited infrastructure, the proposed project and related projects have the potential to result in a cumulative impact related to exposing people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. With the implementation of similar mitigation, cumulative impacts would be less than significant.

Mitigation Measures

Implementation of **Mitigation Measures MM 4.7-8** (see **Section 4.7, Geology and Soils**), **MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**), **MM 4.10-1**, **MM 4.10-2**, (**Section 4.10, Hydrology and Water Quality**), and **MM 4.15-1** (see **Section 4.15, Public Services**) would be required.

Level of Significance After Mitigation

With implementation of **Mitigation Measures MM 4.7-8, MM 4.9-13, MM 4.10-1, MM 4.10-2, and MM 4.15-1**, impacts be less than significant.

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Chapter 5
Consequences of Project Implementation

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Consequences of Project Implementation

5.1 Environmental Effects Found to be Less than Significant

California Environmental Quality Act (CEQA) Guidelines Section 15128 requires that an Environmental Impact Report (EIR) “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 the scoping of the environmental document. Comments received during scoping have been considered in the process of identifying issue areas that should receive attention in the Draft EIR. The Draft EIR’s contents were established based on the Notice of Preparation/Initial Study (NOP/IS) located in Appendix A of this Draft EIR that was prepared in accordance with the CEQA Guidelines and in consideration of public and agency input received during the scoping process.

This Draft EIR contains a comprehensive analysis of potential environmental impacts in Chapter 4 and all possible significant effects were discussed in detail in this Draft EIR. After further study and environmental review, as provided in this Draft EIR in Chapter 4, it was determined that certain project-level impacts in the following areas would be less than significant or could be reduced to less than significant levels with mitigation measures. The analysis, mitigation, and conclusions related to these topical areas are provided in Chapter 4 of this Draft EIR:

- Biological Resources
- Cultural Resources
- Energy
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Tribal Cultural Resources
- Utilities and Service Systems
- Wildfire

5.2 Significant Environmental Effects That Cannot be Avoided

CEQA Guidelines Section 15126.2(b) requires that the EIR describe any significant impacts, including those that can be mitigated but not reduced to less than significant levels.

After further study and environmental review, as provided in this Draft EIR, it was determined that certain project-level and cumulative impacts would remain significant and unavoidable, even with the incorporation of reasonable mitigation measures. As shown in **Table 5-1: Summary of Significant and Unavoidable Impacts of the Proposed Project**, impacts in the following areas would be significant and unavoidable, even with the incorporation of feasible mitigation:

TABLE 5-1: SUMMARY OF SIGNIFICANT AND UNAVOIDABLE IMPACTS OF THE PROPOSED PROJECT

Resources	Project Impacts	Cumulative Impacts
Aesthetics	<p>Implementation of the proposed project would result in potentially significant visual impacts to the existing visual quality or character of the site and surrounding area, as outlined in Section 4.1, Aesthetics, Impact 4.1-3. Mitigation Measures MM 4.1-1 through MM 4.1-3 would be incorporated to reduce visual impacts that would occur from the collection of debris along the site boundary and would limit vegetation removal and plant native vegetation. However, because there are no feasible mitigation measures that can be implemented to maintain the existing open and undeveloped landscape character of the project site, impacts to visual resources would remain significant and unavoidable.</p>	<p>The proposed project would have cumulatively significant and unavoidable aesthetic impacts related to visual character despite implementation of mitigation. Although implementation of Mitigation Measures MM 4.1-1 through MM 4.1-5 would reduce the adverse visual changes experienced at individual viewpoints, there are no mitigation measures that would allow for the preservation of the existing visual character of the area. The conversion of approximately 93.74 acres of undeveloped land to a warehouse facility is considered a significant and unavoidable cumulative impact.</p>
<p>Agricultural and Forestry Resources</p>	<p>As detailed in Section 4.2, Agriculture and Forestry Resources, Impact 4.2-1, implementation of the proposed project would not conflict with an existing Williamson Act Contract, however, it would require various land use entitlements, including changes from existing land use designations and zoning from agricultural to industrial, as well as the exclusion from Agricultural Preserve No. 10. Despite implementation of Mitigation Measures MM 4.2-1 through MM 4.2-4, it has been determined that no feasible mitigation is available to reduce impacts related to the proposed project’s zoning change; therefore, impacts related to the cancellation of an open space contract would be significant and unavoidable.</p> <p>As detailed in Section 4.2, Agriculture and Forestry Resources, Impact 4.2-2, implementation of the proposed project would result in the conversion of Prime Farmland and Unique Farmland to industrially designated and zoned land. No feasible mitigation is available to reduce impacts related to the proposed project’s zoning change, and therefore impacts related to the cancellation of an open space contract would be significant and unavoidable.</p>	<p>The proposed project would convert approximately 93.74 acres of agricultural land to nonagricultural uses, with an additional 5.54 acres of off-site improvements. Development of the proposed project would result in conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), and the proposed project’s contribution to the conversion of agricultural land to nonagricultural uses would be cumulatively considerable. The proposed project’s incremental effect is 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, and thus cumulative impacts would be significant and unavoidable.</p> <p>The proposed project would result in a significant impact involving an Agricultural Preserve Exclusion and would conflict with the project site’s existing zoning. Cumulative projects, including the proposed project, which are included in Agricultural Preserves and zoned for agricultural uses, would similarly result in conflicts related to Agricultural Preserve Exclusions and zoning conflicts. As explained under Impact 4.2-2, no feasible mitigation is available to reduce impacts related to zoning conflicts. The proposed project’s incremental effect is cumulatively considerable when viewed in connection with the effects of other closely related past projects, the effects of other current projects,</p>

Resources	Project Impacts	Cumulative Impacts
Air Quality	N/A	<p>and the effects of probable future projects, and thus cumulative impacts would be significant and unavoidable.</p> <p>The proposed project would have cumulatively significant and unavoidable air quality impacts related to consistency with existing air quality plans due to the net increase of criteria pollutants emissions after implementation of mitigation. Although with implementation of mitigation measures the proposed project would not result in significant levels of criterial pollutants during construction or operations, it is speculative to determine how the project’s incremental increase in emissions 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. As such, cumulative impacts for criteria pollutants would be considered significant and unavoidable.</p>
Greenhouse Gas Emissions	<p>As described in Section 4.8, Greenhouse Gas Emissions, Impact 4.8-1, compared to relevant climate goals related to reducing GHG emissions, the proposed project’s VMT exceeds the County average and VMT threshold, resulting in a significant impact to VMT. Although the proposed project would be required to implement a TDM program to reduce VMT as described under Mitigation Measures MM 4.17-2, it is unclear whether the TDM program would reduce project VMT to below thresholds. Furthermore, Mitigation Measures MM 4.8-1 and MM 4.8-2 would be required, which would require the proposed project to utilize only electric powered off-road equipment and stipulates requirements if the proposed project requires cold storage in the future. Even with implementation of Mitigation Measures MM 4.17-2, MM 4.8-1, and MM 4.8-2, the proposed project would have a significant and unavoidable impact related to GHG emissions.</p>	<p>As described in Section 4.8, Greenhouse Gas Emissions, the proposed project’s cumulative impact on global climate change is considered to be significant and unavoidable even with the implementation of Mitigation Measures MM 4.17-2, MM 4.8-1, and MM 4.8-2, as GHG impacts are exclusively cumulative.</p>
Hydrology and Water Quality	N/A	<p>Similar to the proposed project, cumulative projects would not discharge to waters of the United States due to their location within the San Joaquin Valley, which is effectively a</p>

Resources	Project Impacts	Cumulative Impacts
		<p>closed basin with no outlet to the Pacific Ocean. All projects would be required to either retain all runoff on-site or would be required to prepare a SWPPP. For water supply, the proposed project would be expected to result in a net reduction in water consumption relative to what is currently used on-site to irrigate the row crops. With respect to erosion, drainage, and flooding, impacts from cumulative scenario projects would be primarily localized. It is anticipated that cumulative scenario projects would be required to implement BMPs and measures similar to Mitigation Measures MM 4.10-1, MM 4.10-2, MM 4.7-8, MM 4.9-3, MM 4.19-7, and MM 4.19-8, in order to avoid erosion, drainage, and flooding related impacts. However, as 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 could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable even after all feasible and reasonable mitigation.</p>
<p>Transportation</p>	<p>As described in Section 4.17, Transportation and Traffic, Impact 4.17-2, the proposed project would result in an increase in VMT per employee of 0.2 percent above regional thresholds. While the proposed project would develop a Transportation Demand Management Program as outlined in Mitigation Measure MM 4.17-2, it is unlikely that the proposed project would reduce employee VMT below significant levels. There is no feasible mitigation available to reduce impacts related to the proposed project’s VMT, and therefore impacts related to VMT would be significant and unavoidable.</p>	<p>The proposed project would result in significant impacts related to VMT per employee. Development of the project, with implementation of the existing regulatory requirements and Mitigation Measure MM 4.17-2 discussed above, would result in a significant and unavoidable impact to VMT standards. It cannot be assumed that cumulative projects would be required to implement mitigation measures similar to those outlined in Mitigation Measure MM 4.17-2 or that their effects would be reduced to less than significant levels. For this reason, the proposed project’s incremental effect is cumulatively considerable when viewed in connection with the effects of other closely related project and the effects of probable future projects. As such, cumulative impacts for transportation VMT would be considered significant and unavoidable.</p>
<p>Utilities Service Systems</p>	<p>N/A</p>	<p>The Kern County subbasin is considered to be critically overdrafted and District’s Groundwater Sustainability Plan (GSP) has been deemed inadequate along with the other Kern subbasin plans where the other similar</p>

Resources	Project Impacts	Cumulative Impacts
		<p>known and unknown projects could occur. Cumulative projects would be required to implement Mitigation Measures MM 4.19-7 and MM 4.19-8, which would require any groundwater pumping on-site to come from wells equipped with water meters and notification of appropriate Groundwater Sustainability Agencies including Kern County Water Agency. However, cumulative impacts to water supply and the use of any groundwater impacts in the area are considered significant and unavoidable even after all feasible and reasonable mitigation.</p>

5.3 Irreversible Impacts

CEQA Guidelines Section 15126.2(c) 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 the project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified.

Buildout of the proposed project would commit nonrenewable resources during project construction. 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. 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 and Kern County General Plan, as a matter of public policy, those commitments have been determined to be acceptable. The project’s implementation of the Mitigation Monitoring and Reporting Program, as well as adherence to the provisions set forth in the Metropolitan Bakersfield General Plan and Kern County General Plan, would ensure that any irreversible environmental changes associated with those commitments would be minimized.

Additionally, the proposed 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 proposed 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 Kern County General Plan recognizes that certain forms of growth are beneficial, both economically and socially. CEQA Guidelines Section 15126.2(e) 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 be a result of new development that requires an increase in employment levels, removes barriers to development, or provides resources that lead to secondary growth.

The proposed project does not include the construction of housing, and would therefore not result in direct population growth as a result of additional housing. With respect to employment, the project would not induce substantial growth. The number of on-site construction workers needed would largely depend on the specific phase of construction but would likely range between a few dozen workers up to 100 at any given time. During project operation, the proposed project would employ approximately 915 employees per shift (1,830 total) in peak season and 732 employees per shift (1,464 total) in non-peak season. It is anticipated that the construction and operational workforce would commute to the project site from local communities.

As described in **Section 4.14, *Population and Housing***, the unemployment rate in the proposed project region was 7.5 percent in September 2023, down from 8.0 percent in August 2023. This regional unemployment rate is still above the California unemployment rate (4.8 percent) and national average (3.6 percent). Thus, the temporary and permanent employees required by the proposed project could come from the surrounding areas without the need for relocation. The proposed project would not create additional infrastructure or road extensions that would indirectly induce population growth. As described in **Section 4.17, *Utilities and Service Systems***, the proposed project would connect to existing service laterals located within Wible Road and Houghton Road for electricity during construction, and water services during construction and operation. Electricity and natural gas service would be provided by Pacific Gas & Electric (PG&E) during construction. Once operational, a substation would be located at the northeast corner of the project site and would provide power generation for the on-site building. Natural gas would not be required for project operation. The proposed project would include its own on-site stormwater drainage and private wastewater collection and treatment package system, and therefore 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.

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 could feasibly avoid or lessen any significant environmental impacts of the project while attaining most of the project's basic objectives. An EIR also must compare and evaluate the environmental effects and comparative merits of the alternatives. This chapter describes alternatives considered but eliminated from further consideration (including the reasons for elimination) and compares the environmental impacts of several alternatives retained with those of 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 site 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 that fosters 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 *CEQA Guidelines* Section 15126.6(f)(1)) are environmental impacts, site suitability, economic viability, social and political acceptability, technological capacity, availability of infrastructure, General Plan consistency, regulatory limitations, jurisdictional boundaries, and whether the project proponent could reasonably acquire, control, or otherwise have access to an alternative site. If an alternative has effects that cannot be reasonably identified, if its implementation is remote or speculative, and if it would not achieve the basic project objectives, it need not be considered in the EIR.

6.1.1 Significant Impacts of the Project after Mitigation

Implementation of the project has the potential to have significant adverse effects on:

- Aesthetics (project and cumulative)

- Agriculture and Forestry Resources (project and cumulative)
- Air Quality (cumulative)
- Greenhouse Gas (GHG) Emissions (project and cumulative)
- Hydrology and Water Quality (cumulative)
- Transportation (project and cumulative)
- Utilities and Service Systems (cumulative)

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.

Aesthetics

As described in **Section 4.1**, *Aesthetics*, implementation of the proposed project would result in potentially significant visual impacts to the existing visual quality or character of the site and surrounding area. The visual change associated with project development would be somewhat muted when viewed from a distance of greater than 1 mile; however, the development of a warehouse facility on approximately 93.74 acres of currently undeveloped/active agricultural terrain would likely attract attention. More importantly, development of the proposed project would expand existing industrial development present in the San Joaquin Valley and would introduce industrial infrastructure and elements where they do not currently dominate the landscape, resulting in significant aesthetic impacts. Implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-5** would help reduce visual impacts that would occur from the collection of debris along the site boundary and would limit vegetation removal and would plant native vegetation. Nevertheless, even with implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-5**, project-level impacts to visual character and quality would remain significant and unavoidable.

Additionally, while other projects in the region would also be required to implement various mitigation measures to reduce impacts associated with visual character and quality, the conversion of land in a presently rural area to light industrial uses cannot be mitigated to a degree that impacts are no longer significant. Development of the proposed project would result in significant impacts associated with visual character and quality in the area. Even with implementation of **Mitigation Measures MM 4.1-1** through **MM 4.1-5**, the proposed project's contribution to significant cumulative impacts associated with visual character and quality in the San Joaquin Valley would be significant and unavoidable.

Agriculture and Forestry Resources

As described in **Section 4.2**, *Agriculture and Forestry Resources*, the proposed project would convert approximately 93.74 acres of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), to nonagricultural uses. While the proposed project is within Kern County Agricultural Preserve No. 10, it is not encumbered by a Williamson Act Contract.

Although the conversion of agricultural land to nonagricultural uses is affected by numerous factors, the project's conversion of 93.74 acres of agricultural land is cumulatively significant when considered in connection with effects of other closely related past projects, current projects and of probable future

projects. Even with the implementation of **Mitigation Measures MM 4.2-1 through MM 4.2-4, MM 4.-9-1, and MM 4.9-2**, impacts to agricultural resources are considered significant and unavoidable.

Air Quality

With project implementation, short-term and long-term increases in construction and operational emissions of primary concern within the region (i.e., ROG, NO_x, CO, SO_x, PM₁₀, and PM_{2.5}) would be minimal and would not exceed applicable significance thresholds with implementation of **Mitigation Measures MM 4.3-1 through MM 4.3-10**. As it relates to consistency with air quality plans, the San Joaquin Valley Air Basin 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. As the proposed project would not result in significant temporary levels of NO_x, CO, and PM₁₀ emissions during construction with implementation of **Mitigation Measures MM 4.3-1 through MM 4.3-10**, the proposed project would not obstruct the San Joaquin Valley Air Pollution Control District's (SJVAPCD's) ability to achieve further progress toward attainment of the state standards. However, due to the open nature of the project site, blowing dust could occur and result in the dispersal of criteria air pollutants such as PM_{2.5} and contribute to the transmission of respiratory diseases like COVID-19. Even with implementation of **Mitigation Measures MM 4.3-1 through MM 4.3-11**, the uncertainty of the project's regional and localized health impacts associated with criteria air pollutants, such as PM_{2.5} along with indirect linkages of criteria pollutants and COVID-19 on vulnerable populations, would result in a significant and unavoidable project level impact. In addition, on a cumulative level, potential cumulative impacts to air quality could occur from construction and operation of the proposed 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 exposed to elevated concentrations of air pollutants in the San Joaquin Valley Air Basin at the present time and it has not provided methodology to assess the specific correlation between mass emissions generated and the effect on health.

Greenhouse Gas Emissions

As described in **Section 4.8, Greenhouse Gas Emissions**, the proposed project's VMT would exceed the County average VMT and VMT threshold, resulting in a significant impact to VMT. Although the proposed project would be required to implement a Transportation Demand Management (TDM) program to reduce VMT as described under **Mitigation Measure MM 4.17-2**, it is unclear whether the TDM program would reduce project VMT to below thresholds. **Mitigation Measures MM 4.8-1 and MM 4.8-2** would also be required, which would require the proposed project to utilize only electric powered off-road equipment and stipulates requirements if the proposed project requires cold storage in the future. Even with implementation of **Mitigation Measures MM 4.17-2, MM 4.8-1, and MM 4.8-2**, the proposed project would have a significant and unavoidable impact related to GHG emissions. Furthermore, GHG impacts are exclusively cumulative, and mitigation required at the project level represents all feasible and enforceable mitigation for the proposed project's cumulative impact; any other feasible reductions would be accomplished through compliance with regulations. Therefore, the proposed project's cumulative impact on global climate change is considered to be significant and unavoidable.

Hydrology and Water Quality

As described in **Section 4.10, *Hydrology and Water Quality***, the proposed project is expected to result in less-than-significant impacts on a project-level. When viewed cumulatively with similar projects in the area, cumulative projects would not discharge to waters of the United States due to their location within the San Joaquin Valley, which is effectively a closed basin with no outlet to the Pacific Ocean. All such projects would be required to either retain all runoff on-site or would be required to prepare a SWPPP as required by **Mitigation Measure MM 4.10-1** and Erosion and Sedimentation Control Plan as described by to **MM 4.7-8** (see **Section 4.7, *Geology and Soils***), which would include BMPs designed to prevent the mixture of sediment and other pollutants with stormwater and degrading water quality. Furthermore, all other projects in the vicinity that would handle hazardous materials would also be required to comply with hazardous material regulations, similar to the proposed project's implementation of **Mitigation Measure MM 4.9-3** (see **Section 4.9, *Hazards and Hazardous Materials***). Therefore, cumulative impacts associated with water quality degradation would be less than significant, and moreover, the proposed project would not have a cumulatively considerable contribution to the less than significant cumulative impact on water quality.

With regard to water supply, the proposed project would be expected to result in a net reduction in water consumption relative to what is currently used on-site to irrigate the row crops. Though the Water Supply Assessment determined that there are sufficient supplies for both project construction and operation, **Mitigation Measure MM 4.19-7 and MM 4.19-8** (see **Section 4.19, *Utilities and Service Systems***) would be implemented to ensure that any groundwater used is accounted for should the project require additional water supplies in excess of the allotment from the District. As a result, there would be no adverse project level effects to the groundwater subbasin.

With respect to erosion, drainage, and flooding, impacts from cumulative scenario projects would be primarily localized. It is anticipated that cumulative scenario projects would be required to implement BMPs and measures similar to **Mitigation Measures MM 4.10-1, MM 4.10-2, MM 4.7-8, MM 4.9-3 and MM 4.19-7, and MM 4.19-8**, in order to avoid erosion, drainage, and flooding related impacts. As 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 could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible and reasonable mitigation.

Transportation

As described in **Section 4.17, *Transportation and Traffic***, the proposed project is located within the planning area of the Metropolitan Bakersfield General Plan. As such, all study locations analyzed in this EIR are controlled by the City, which relies on level of service (LOS) to determine deficiencies. The City strives to maintain operations at an LOS C. Significant impacts to City intersections or roadway segments occur if operations degrade from LOS C or better to LOS D, E, or F.

The new *CEQA Guidelines* Section 15064.3(b) was adopted in December 2018 by the California Natural Resources Agency. With the passage of SB 743, Vehicle Miles Traveled (VMT) has become an important indicator for determining whether a new development will result in a "significant transportation impact" under CEQA. The Metropolitan Bakersfield General Plan does not identify target VMT thresholds and significance criteria. Therefore, the analysis was conducted based on the guidance from the Office of Planning and Research (OPR) Technical Advisory on Evaluating Transportation Impacts in CEQA.

Site access to the proposed project would be provided by two access driveways located along Houghton Road and Wible Road. The driveway off Houghton Road would be left turn exiting restricted and would not be signalized. The driveway off Wible Avenue would not be restricted or signalized. Included in the project site plans is an internal drive aisle located along the southern and eastern edges of the proposed project, with four internal driveways located off the southern drive aisle.

As described in **Section 4.17, *Transportation and Traffic***, implementation of the proposed project would not result in significant deficiencies in LOS to any of the intersections or roadway segments analyzed. However, the proposed project would cause an increase in Countywide VMT that would exceed the County VMT threshold and thus result in significant and unavoidable impacts. Even with the implementation of a Transportation Demand Management (TDM) program and other traffic-reducing measures, impacts to traffic would be cumulatively considerable, and therefore considered significant.

Utilities and System Services

As described in Section 4.19, *Utilities and System Services*, is expected to result in a less than significant impact to utilities and system services on a project level. The proposed project would be served by Cal Water, which has stated in its 2020 UWMP that it would have adequate supply for the planning area under normal, dry, and multiple dry year scenarios. The project site would be served by a private wastewater treatment plant on-site through the implementation of **Mitigation Measure MM 4.19-1** through **MM 4.19-4**, and would not require the construction of any new wastewater facilities or contribute to any cumulative impact on regional wastewater treatment. Similarly, the stormwater retention basins included in the proposed project's Precise Development Plan would adhere to all County requirements and would result in less than significant project and cumulative level impacts. Demand associated with energy and telecommunication services would be minimal and is expected to be within the planning forecasts of the affected providers, however the project proponent would coordinate with PG&E to determine specific requirements for the project prior to issuance of grading permits as required by **Mitigation Measures MM 4.19-5** and **4.19-6**. Additionally, the proposed project would be required to adhere to all State and County regulations regarding solid waste and recycling, including appointing an on-site recycling coordinator as outlined in **Mitigation Measure MM 4.19-9**. Therefore, all project impacts, and cumulative impacts associated with wastewater, stormwater, solid waste, electricity, natural gas, and telecommunications services would be less than significant.

As stated above, Cal Water would have the ability to meet the City's projected normal, dry, and multiple-dry year scenarios, and with the implementation of **Mitigation Measures MM 4.19-7** and **MM 4.19-8**, any groundwater pumping on-site would be required to come from wells equipped with water meters, and the appropriate Groundwater Sustainability Agencies and the Kern County Water Agency would be notified. However, as 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 could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible mitigation.

6.2 Proponent Submitted Project Objectives

As described in **Chapter 3, *Project Description*** of this EIR, State CEQA Guidelines Section 15124(b) requires that a project description include a clearly written statement of objectives. The statement of

objectives should include the underlying purpose of the project and may discuss the project benefits. The following are the proponent submitted project objectives for the proposed project:

- Develop an innovative industrial use on land with ready access to infrastructure and a major transportation corridor.
- Meet regional demand for new warehouse facilities near State Route (SR) 99 to reduce local and regional traffic congestion and air emissions.
- 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 agricultural uses by developing a compatible industrial project with a secure perimeter.
- 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.
- Improve circulation through the construction of new roads and improvement of existing roads west of SR-99.
- Site an industrial project in a location that minimizes conflicts with residential, conservation, and agricultural uses.

6.3 Overview of the Project

The proposed project would include the development of a 653,442-square-foot single-story warehouse distribution facility and associated improvements on approximately 93.74 acres located in the central portion of unincorporated Kern County. The proposed facility has a footprint of approximately 629,186 square feet (including approximately 44,424 square feet of office space). The remaining square footage is made up of a 24,256-square-foot mezzanine, which contains only material handling equipment conveyors with occasional maintenance and no storage. In addition, a substation would be located at the northeast portion of the site and would include circuit breakers, disconnect switches, metering protection equipment, and main step-up transformers. The proposed project would also include two guardhouses and one pumphouse.

6.4 Overview of Alternatives to the Project

Under CEQA, and as indicated 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, three alternatives, including the No Project Alternative as required by CEQA, are considered in this chapter and summarized in **Table 6-1, Summary of Development Alternatives**. The Environmentally Superior Alternative, as required by CEQA, is described in **Section 6.8, 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 General Plan Amendment (GPA), Zone Classification Change (ZCC), Conditional Use Permits (CUP), Precise Development Plan, Exclusion from Agricultural Preserve, Zone Variance (ZV) and Tentative Parcel Map for construction and operation of a warehouse and logistics facility. Under the No Project Alternative, the project site would maintain the current zoning, land use classifications, and existing land uses of cultivated agricultural land. 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 develop the proposed project at the same 93.74-acre project site with a footprint reduced by 50 percent. This alternative would include a 326,721-square-foot warehouse and distribution facility and related improvements. The proposed facility would have a footprint of approximately 314,593 square feet that would primarily facilitate material handling equipment and warehouse uses. The facility would feature 66 truck doors, approximately 500 automobile parking spaces, and approximately 2.5 acres of landscaping and irrigation improvements. This alternative would result in a reduction of the development footprint, as well as a reduction in employee and truck trip generation, traffic, and emissions impacts compared to the proposed project. This alternative would require the same entitlements as the proposed project.

6.4.3 Alternative 3: Alternate Site Alternative

Alternative project sites are typically evaluated in CEQA documentation in order to avoid, reduce, or eliminate significant and unavoidable impacts associated with the proposed 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 proposed 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 proposed project, as listed in **Section 6.2, *Proponent Submitted Project Objectives***, and likewise may not avoid or substantially reduce the environmental impacts of the proposed project.

Under Alternative 3, the Alternative Site Alternative, the proposed project would be developed on a site located within the Mojave Specific Plan Area of similar size to the project site. 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. The intention of this project alternative is to find a project site closer to a major city and reduce required travel distances for distribution trucks and related impacts to aesthetics, agriculture and forestry, air quality, GHG, and traffic associated with the proposed project. Under this alternative, the current project site would maintain the current zoning, land use classifications, and existing land uses, which consists of cultivated agricultural land. The proposed project would be developed at a site approximately 50 miles southeast of the proposed project site in unincorporated Kern County. The entitlements for this project would be dependent on the site selected within the planning area.

Table 6-1, *Summary of Development Alternatives*, 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
Project	Construction and operation of a concrete tilt-up warehouse on approximately 93.74 acres. Development would include an electrical substation, water treatment facility, internal private drive aisle, and two guardhouses. Approval of a GPA, Zone Change, CUP's, Agricultural Preserve Exclusion Precise Development Plan, Conditional Use Permits, and Tentative Parcel Map for construction and operation of a the proposed project would be required.	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 GPA, ZCC, CUPs, PD Plan, ZV, TPM. • Avoids all significant and unavoidable impacts. • Less impact in all environmental issue areas.
Alternative 2: Reduced Footprint Alternative	Project site would be developed with a footprint that has been reduced by 50 percent. All required entitlements for the proposed project would remain.	<ul style="list-style-type: none"> • Similar impacts to biological resources, cultural resources, hazards and hazardous materials, land use and planning, mineral resources, population and housing, public services, recreation, tribal cultural resources. • No issue areas with greater impacts. • Less impact to aesthetics, agriculture and forestry resources, air quality, energy, geology and soils, GHG emissions, hydrology and water quality, noise, transportation, and utilities and system services, wildfires.
Alternative 3: Alternative Site Alternative	Construction and operation of the warehouse and associated development on an alternative site located approximately 50 miles southeast of the proposed project site. Required entitlements for the Alternative Site Alternative would be dependent on the site selected.	<ul style="list-style-type: none"> • Similar impacts to aesthetics, agriculture and forestry resources, air quality, energy, GHG emissions, public services, recreation. • Greater impacts to all other issue areas. • No issue areas with less impact.

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)(2)).

Kern County considered several alternatives to reduce impacts to aesthetics (project and cumulative), air quality (project and cumulative), GHG emissions (project only) and transportation (project and cumulative). 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 lead agency has determined that three (3) alternatives listed above are all feasible and warrant further consideration as discussed below.

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, Comparison of Alternatives, 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 impacts “no impact (NI), less than significant (LTS), or significant and unavoidable (SU),” in the parentheses refer to the significance conclusion of the specific alternative.

TABLE 6-2: COMPARISON OF ALTERNATIVES

Environmental Resource	Project	Alternative 1: No Project Alternative	Alternative 2: Reduced Footprint Alternative	Alternative 3: Alternative Site Alternative
Aesthetics	Significant and unavoidable impact (project and cumulative)	Less (NI)	Less (SU)	Greater (SU)
Agriculture and Forestry Resources	Significant and unavoidable impact (project and cumulative)	Less (NI)	Less (SU)	Similar (SU)
Air Quality	Significant and unavoidable impact—construction (project and cumulative) Less than significant impact with mitigation incorporated—operational (project and cumulative)	Less (NI)	Less (SU)	Similar (SU)
Biological Resources	Less than significant impact with mitigation incorporated	Less (NI)	Similar (LTS)	Greater (SU)
Cultural Resources	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Energy	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Similar (LTS)
Geology and Soils	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Greenhouse Gas Emissions	Significant and unavoidable impact (project and cumulative)	Less (NI)	Similar (SU)	Similar (SU)
Hazards and Hazardous Materials	Less than significant impact with mitigation incorporated	Less (NI)	Similar (LTS)	Greater (SU)
Hydrology and Water Quality	Significant and Unavoidable (cumulative)	Similar (SU)	Less (SU)	Greater (SU)
Land Use and Planning	Less than significant impact with mitigation incorporated	Less (NI)	Similar (LTS)	Greater (SU)
Mineral Resources	Less than significant impact	Less (NI)	Similar (LTS)	Greater (SU)
Noise	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Population and Housing	Less than significant impact	Less (NI)	Similar (NI)	Greater (SU)

Environmental Resource	Project	Alternative 1: No Project Alternative	Alternative 2: Reduced Footprint Alternative	Alternative 3: Alternative Site Alternative
Public Services	Less than significant impact with mitigation incorporated	Less (NI)	Similar (LTS)	Similar (LTS)
Recreation	Less than significant impact	Less (NI)	Similar (LTS)	Similar (LTS)
Transportation	Significant and unavoidable impact (project and cumulative)	Less (NI)	Less (LTS)	Greater (SU)
Tribal Cultural Resources	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Utilities and Service Systems	Significant and Unavoidable (cumulative)	Less (NI)	Less (LTS)	Greater (SU)
Wildfires	Less than significant impact with mitigation incorporated	Less (NI)	Less (LTS)	Greater (SU)
Meet Project Objectives?	All	None	All	All
Reduce Significant and Unavoidable Impacts?	N/A	All	Partially	None

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 accompanying infrastructure would not be constructed. The project site would remain in its current state as undeveloped agricultural 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.

Agriculture and Forestry Resources

Under the No Project Alternative, no development would take place on the project site and the proposed warehouse and accompanying infrastructure would not be constructed. The project site would remain in its current state, as largely undeveloped open space and grazing land. As such, the No Project Alternative would not involve changes to the existing environment which could result in the conversion of Farmland to nonagricultural. Therefore, there would be no impact and the No Project Alternative would result in less impact 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 accompanying infrastructure 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 conflict 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 related 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 accompanying infrastructure would not be constructed. Existing biological resources on the project site, including special-status plant and wildlife species, would remain undisturbed since no construction or operation would occur. The project site would remain in its current state as agricultural land, which predominantly includes row crop vegetation, and would not contribute to a cumulative loss of wildlife species, including burrowing owls, Swainson's hawk, and migratory birds known to occur or with potential to occur on the project site. 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 accompanying infrastructure would not be constructed. The project site would remain undeveloped and no ground-disturbing activities would occur. As such, disturbance to potential historical resources, archaeological resources, or human remains located on-site 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 accompanying infrastructure 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 impact 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 accompanying infrastructure would not be constructed. The project site would remain undeveloped and no ground disturbance would occur. As such, the No Project Alternative would not 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 landslide, lateral spreading, subsidence, liquefaction, or collapse; be located on expansive soil; soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems; or 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 accompanying infrastructure would not be constructed. Emissions associated with construction and operation of a warehouse and distribution center would not occur. Therefore, those emissions 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 accompanying infrastructure would not be constructed. The project site would remain in its current condition. As such, this alternative would not 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 miles 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; or generate vectors. Therefore, there would be no impact and the No Project Alternative would result in less impact related to hazards and 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 accompanying infrastructure 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 logistics facility would occur on the project site. Agricultural uses would likely continue, however 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 could occur. As such, this alternative would 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 and/or sedimentation on-site or off-site, result in flooding on-site or off-site; create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage system, or impede or redirect flood flows; result in flood hazards, tsunamis, or seiche zones; or conflict with or obstruct implementation of a water quality plan. Therefore, the No Project Alternative would result in a similar impact related to hydrology and water quality compared to the project due to the existing status of the subbasin.

Land Use and Planning

Under the No Project Alternative, no development would take place on the project site and the proposed warehouse and accompanying infrastructure 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 GPA, ZCC, CUP, Precise Development Plan, Exclusion from Agricultural Preserve, ZV and Tentative Parcel Map. 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 accompanying infrastructure would not be constructed. The project site would remain undeveloped and no ground disturbance would occur. As such, the proposed project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the State, and it would not result in the loss of availability of a locally important mineral resources recovery site delineated on a local general plan, specific plan, or other land use plan. Therefore, there would be no impact and the No Project Alternative would result in less impact 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 accompanying infrastructure would not be constructed. Noise sources from construction and operation would not be present on-site, and existing noise conditions would remain the same. As such, the No Project Alternative would not result in generation of a substantial temporary or permanent increase in ambient noise levels; generate excessive ground-borne vibration; or 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 accompanying infrastructure would not be constructed. Without the influx of new jobs and work force resulting from the proposed project, no net increase of existing County population would occur and incidentally, 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 accompanying infrastructure 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 accompanying infrastructure 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 and the No Project Alternative would result in less impact related to population and housing 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 accompanying infrastructure 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, 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 VMT. In addition, the No Project Alternative would not substantially increase hazards due to a geometric design feature or result in inadequate emergency access. Therefore, there would be no impact and the No Project Alternative would result in less impact related to transportation 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 accompanying infrastructure 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 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 accompanying infrastructure would not be constructed. There would be no new demand for utilities and service systems on the project site. As such, the No Project Alternative would not 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; generate solid waste in excess of state or local standards; or 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, the proposed warehouse and accompanying infrastructure would not be constructed. As such, the No Project Alternative would not 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; or expose people or structures to significant risks. Therefore, there would be no impact and the No Project Alternative would result in less impact related to wildfire compared to the project.

Comparison of Impacts

The No Project Alternative would avoid the significant and unavoidable impacts associated with development of the project. This alternative would result in less impact to all environmental issue areas 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 proposed project would not be realized under this alternative.

6.7.2 Alternative 2: Reduced Footprint Alternative

Under the Reduced Footprint Alternative, the proposed project would reduce its footprint by 50 percent (from 93.74 acres to 46.87 acres) and would include construction of a warehouse and distribution center at a smaller scale than the proposed project. The Reduced Footprint Alternative would also include the construction of the approximate 5.54-acre off-site road improvements, an on-site substation, water treatment facility, and associated infrastructure, similar to the proposed project.

Environmental Impact Analysis

Aesthetics

With regard to impacts related to scenic vistas, there are no officially designated scenic vistas within the vicinity of the project site. However, the viewshed of the Tehachapi and San Gabriel Mountains experienced by persons traveling south on I-5 in passenger vehicles could be considered a scenic vista. The proposed project is located approximately 8.75 miles from I-5, too far to affect the overall viewshed of the surrounding mountain ranges for travelers. The agrarian landscape comprised of row crops and orchards could also be considered a scenic vista by the local community but is not constituted as one per standards of CEQA. As such, impacts would be less than significant.

Similar to the project, the Reduced Footprint Alternative is located approximately 60 miles northwest of the nearest Eligible State Scenic Highway and is separated from these highways by the Tehachapi and San Emigdio Mountains. Given this distance and intervening topography, the Reduced Footprint Alternative project would not be visible from any Officially Designated or Eligible State Scenic Highway.

While this alternative would avoid development on a portion of the project site, this alternative would include the development of a warehouse, distribution facility, and associated infrastructure. Similar to the proposed project, the Reduced Footprint Alternative would be required to implement **Mitigation Measure 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 proposed project would utilize aesthetically pleasing landscaping. However, because there are no feasible mitigation measures that can be implemented to maintain the agricultural landscape character of the project site, impacts to visual resources would remain significant and unavoidable, similar to the proposed project. Cumulative impacts to visual character under the Reduced Footprint Alternative would be significant and unavoidable as related projects coupled with

development of the Reduced Footprint Alternative would convert land in a presently rural area to a degree that cannot be mitigated, similar to the project.

Despite the reduced footprint and size of the warehouse and associated infrastructure under the Reduced Footprint Alternative as compared with the proposed project, 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 Measures MM 4.1-4** and **MM 4.1-5**, which include demonstrating consistency with the applicable provisions of the *Dark Skies Ordinance* (Chapter 19.81 of the Kern County Zoning Ordinance, demonstrating that the proposed project is designed to minimize glare, and demonstrating that the on-site building utilizes non-reflective materials. Impacts related to light and glare under the Reduced Footprint Alternative site would be less than significant.

The Reduced Footprint Alternative would have less overall impact to aesthetics compared to the project due to the reduction in project site size under this alternative; however, impacts would still remain significant and unavoidable.

Agriculture and Forestry Resources

As described in **Section 4.2, *Agricultural Resources***, the project site is currently used for active agricultural production and is included within Kern County Agricultural Preserve Number 10. According to the California Department of Conservation's (DOC's) Farmland Mapping and Monitoring Program (FMMP), a significant portion of the project site is designated as Prime Farmland while the remaining portion of the project site is designated as Unique Farmland and Semi-Agricultural and Rural Commercial Land. Under the Reduced Footprint Alternative, the proposed project would still be required to apply for an Agricultural Preserve Exclusion. While this alternative would result in the conversion of 50 percent less land than would be converted by the proposed project, development of the Reduced Footprint Alternative would nevertheless result in the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to nonagricultural use.

With regard to forestry resources, the project site is currently used for active agricultural production, and there are no forestry resources or designated forest lands or timberlands located on the project site. No impacts would occur, and therefore impacts would be similar to the proposed project.

Similar to the proposed project, as implementation of this alternative would require an Agricultural Preserve Exclusion and implementation of similar **Mitigation Measures MM 4.9-1** and **MM 4.9-3** (see **Section 4.9, *Hazards and Hazardous Materials***), as well as **MM 4.2-1** through **MM 4.2-4**. Impacts related to the cancellation of an open space contract would be less than significant as the site is not encumbered with a Land Use Contract, similar to the proposed project. As the Reduced Footprint Alternative would include a smaller footprint, the Reduced Footprint Alternative would result in less impact to agriculture and forestry resources compared to the project; however, the impact would remain significant and unavoidable.

Air Quality

The use of construction vehicles, heavy equipment operation, and worker carpool trips would be reduced by 50 percent as compared to the proposed project. Similar to the proposed project, this alternative would also require implementation of **Mitigation Measure MM 4.3-1** through **MM 4.3-10** 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 50 percent from the proposed 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 4.3-10**, any potential impacts related to criteria pollutants designated as nonattainment within the SJVAPCD would be reduced and construction of the proposed project would not conflict with or obstruct implementation of applicable air quality plans. Therefore, impacts from construction would be less than significant. During operation of the Reduced Footprint Alternative, emissions would likewise be reduced by 50 as compared to the proposed project, as fewer commuting and truck trips would be required with the reduced project scale and number of employees on-site. As such, operational impacts would be less than significant.

With regard to exposure to sensitive receptors, the Reduced Footprint Alternative would have a decreased impact compared to the proposed project due to its smaller size. While the proposed project has the potential to expose sensitive receptors to substantial pollutant concentrations during construction, implementation of **Mitigation Measures MM 4.3-1** and **MM 4.3-10** would reduce impacts to less than significant levels. Accordingly, the Reduced Footprint Alternative would reduce the operations and, in turn, the possible impact on nearby sensitive receptors. As such, project-level impacts would be less than significant and less than the proposed project.

With regard to objectionable odors, neither construction nor long-term operations of the proposed 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 thus be less than the proposed project and less than significant on a project level.

As determined above, cumulative construction 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. 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.

The Reduced Footprint Alternative would result in less overall impact 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.

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 California Department of Fish and Wildlife (CDFW) or United States Fish and Wildlife Service (USFWS), as with the project, the Reduced Footprint Alternative would have an impact to burrowing owls, Swainson's hawk, and migratory birds. With implementation of **Mitigation Measures MM 4.4-1** through **MM 4.4-11**, 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 46.87 acres of land within the project site, the undisturbed land would remain under active agricultural use, continuing to constitute inhospitable habitat for candidate, sensitive, or special-status species. Therefore, impacts would remain less than significant.

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 active crop rows and fallowed fields and contains no natural vegetation communities.

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 4.4-6, MM 4.4-10 and MM 4.4-11**, the proposed project is not expected to adversely impact nesting birds and impacts would be less than significant, but 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, project-level impacts under the Reduced Footprint Alternative would be less than significant with implementation of mitigation. Similarly, cumulative impacts would be less than significant with the implementation of similar mitigation. While, this alternative would avoid disturbing 46.87 acres of land within the southwestern parcel, all impacts related to biological resources would be similar compared to the project.

Cultural Resources

While no historical or archaeological resources were identified, 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 paleontological resources, 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, implementation of **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, with implementation of mitigation similar to the mitigation proposed for 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

With regard to significant consumption of energy resources, the proposed project is anticipated to have a less than significant impact to energy consumption during construction and operational activities, as well as to be in compliance 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 proposed 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. In addition, similar to the project, the Reduced Footprint Alternative would be required to implement **Mitigation Measure MM 4.7-2**, which requires that a geotechnical evaluation to evaluate soil conditions and geologic hazards be performed by a qualified geotechnical engineer and the adherence to the specifications, procedures, and site conditions contained within the geotechnical evaluation to be contained in the final design plans. Implementation of these mitigation measures, as with the project, would reduce impacts related to strong seismic ground shaking, unstable geologic unit, and expansive soils. In addition, with regard to soil erosion and loss of topsoil, the Reduced Footprint Alternative would implement **Mitigation Measures MM 4.7-2, MM 4.7-7 and MM 4.7-8**, which include incorporating Best Management Practices (BMPs) consistent with the National Pollutant Discharge Elimination System (NPDES) Program and limiting grading to the minimum area necessary for construction. 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. Impacts would be less than significant.

As it relates to 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. As such, the Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.7-10 through MM 4.7-12**, which would include retention of a qualified paleontologist and implementation of measures if a paleontological resource is found during construction, to reduce impacts to paleontological resources. Therefore, impacts would be less than significant.

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 less compared to the proposed project due to the reduction in ground disturbance required under this alternative.

Greenhouse Gas Emissions

With regard to generation of GHGs, the proposed project's VMT per capita, and thus its mobile source emissions from employee VMT, are inconsistent with the targets set forth in the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Although the proposed project would be required to implement a TDM program to reduce VMT required by **Mitigation Measure MM 4.17-2** (see **Section 4.17, Transportation and Traffic**), it is unknown at this time whether the TDM program would reduce project VMT to below thresholds. While under the Reduced Footprint Alternative the footprint of the proposed project would be reduced by 50 percent, the Reduced Footprint Alternative would not reduce the per capita VMT from the levels of the proposed project. As with the proposed project, the operational emissions of the Reduced Footprint Alternative would remain above thresholds set by the RTP/SCS.

As discussed above, despite the implementation of a TDM program to reduce per capita VMT, it is unclear whether the TDM program would reduce project VMT to below the 19.80 VMT per employee threshold. The Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.8-1 and MM 4.8-2**, which require use of electric-powered off-road equipment during on-site operations and limiting primary warehouse operations to dry-storage only. Therefore, the Reduced Footprint Alternative would

have a significant and unavoidable impact related to GHG emissions, and impacts would be similar to the proposed project.

Hazards and Hazardous Materials

Similar to the project, the Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.7-8** (see **Section 4.7, *Geology and Soils***), **MM 4.9-1** through **MM 4.9-15** (see **Section 4.9, *Hazards and Hazardous Materials***), **MM 4.15-1** (see **Section 4.15, *Public Services***), **MM 4.17-3** (see **Section 4.17, *Transportation and Traffic***), and **MM 4.19-9** (see **Section 4.19, *Utilities and System Services***). **Mitigation Measure MM 4.7-8**, which would require the preparation of a Soil Erosion and Sedimentation Control Plan; the preparation of a Hazardous Materials Business Plan; testing for leaks and remediation; provision of 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; the safe application of non-toxic, approved herbicides as approved by the CDFW and USFWS; as well as require the preparation and approval of a Fire Safety Plan by Kern County Fire Department; the preparation and approval of a Construction Traffic Control Plan by the Kern County Public Works Department; and require that an on-site recycling coordinator be designated by the project proponent to facilitate recycling of all waste through coordination with the on-site contractors, local waste haulers, and/or other facilities that recycle construction/demolition wastes, to the maximum extent feasible. Implementation of 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, nor is the project site within the Kern County Airport Land Use Compatibility Plan.

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 4.17-3** (see **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 4.9-3 and MM 4.15-1** would be implemented which include 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 proposed project would result in less than significant impacts after implementation of mitigation measures and the potential impacts from hazards and hazardous materials under the Reduced Footprint Alternative would be similar compared to the project.

Hydrology and Water Quality

Similar to the project, the Reduced Footprint Alternative would include completion of a NPDES completion form, and 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. Implementation of these mitigation measures would reduce impacts related to 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; and 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 proposed project. As such, the Reduced Footprint Alternative would result in less impervious surface compared to the proposed project, but would nonetheless implement **Mitigation Measures MM 4.10-1** and **MM 4.10-2**. 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 and the Reduced Footprint Alternative would have a proportionally lessened impact on a project level 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. However, As 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 could occur, the cumulative impacts of any use of groundwater in the area are considered significant and unavoidable after all feasible and reasonable mitigation.

Land Use and Planning

The proposed project site has a General Plan designation of Intensive Agriculture (R-IA-minimum 20-acre parcel size) zoned as A (Exclusive Agriculture). As part of the proposed project, approval of a GPA and CUP are required as part of the entitlement process. While the footprint would be reduced, development of the Reduced Footprint Alternative would still require entitlements for a GPA, ZCC, CUP, Precise Development Plan, Exclusion from Agricultural Preserve, Zone Variance ZV and Tentative Parcel Map to operate a warehouse and distribution facility on the project site. Impacts would be less than significant 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 (CGS), the proposed project site is not located on lands classified as a Mineral Resource Zone (MRZ), and there are no wells within the project site. As such, 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 proposed project. As with the proposed project, construction and decommissioning 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 50 percent, in turn reducing the level and duration of noise associated with the proposed project by 50 percent. As such, noise impacts under the Reduced Footprint Alternative would be less than significant and less than the proposed project. In regard to operational activities, the proposed 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 50 percent, and thus operational noise would be reduced by 50 percent 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** and **MM 4.13-3**. 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 or decommissioning. Operation of the Reduced Footprint Alternative would involve worker truck trips and agricultural equipment use that would be a sufficient distance from structures (i.e., over 100 feet away from structures). As such, 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 construction noise, construction, vibration and operational noise impacts. These impacts would be less than those of the project given the reduced footprint under the Reduced Footprint Alternative.

Population and Housing

Similar to the proposed project, the Reduced Footprint Alternative would require a temporary workforce that is assumed to be similar in size to that required for the proposed project. It is anticipated that the construction workforce would commute to the project site from local communities. It is likewise assumed, as for the proposed project, that 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 proposed project. During operation, the workforce for the Reduced Footprint Alternative would be smaller than for the proposed project. Therefore, impacts under the Reduced Footprint Alternative would be less compared to the proposed project.

With regard to displacing housing units or people, the project site is an active agricultural field with no existing structures within the boundaries for proposed development. There are no residences or people living on the project site. As such, the Reduced Footprint Alternative would not displace any houses or people. No impact would occur, and impacts would be similar compared to the proposed project.

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 4.15-1 and MM 4.9-13**, which would require the preparation of a fire safety plan. During operation, the Reduced Footprint Alternative would require fewer employees to be on-site on a permanent basis as compared to the proposed project. Implementation of **Mitigation Measure MM 4.15-1** would also reduce fire risks on-site during operation of this alternative. Impacts related to fire protection would be less than significant with mitigation.

With regard to law enforcement protection, the project site is located in a relatively remote location. The increase in 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, security fencing would be installed around the perimeter of the northwestern and eastern parcels. During operation of this alternative, the additional volume of vehicles associated with workers commuting to the project site during routine maintenance would be minor and is not expected to adversely affect traffic. Therefore, impacts to the CHP are not anticipated.

Furthermore, the Reduced Footprint Alternative would similarly implement **Mitigation Measures MM 4.15-2 and MM 4.15-3**, requiring coordination with the County of Kern to pay necessary sales and use taxes, as well as make efforts to hire 50 percent 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 proposed project, it is assumed 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 result in increased use of existing neighborhood or regional parks or other recreational facilities. The Reduced Footprint Alternative would likewise also not include the construction of residences and would therefore not induce a substantial population increase. Impacts would be less than significant and similar to the proposed project.

With regard to the inclusion of the construction or expansion of recreational facilities, the Reduced Footprint Alternative would, like the proposed project, consist of a concrete tilt-up 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 proposed project.

Based on the above analysis, impacts would be less than significant. Given that both the proposed 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

Similar to the proposed project, construction of the Reduced Footprint Alternative would not significantly affect local traffic with implementation of **Mitigation Measures MM 4.17-1 and MM 4.17-2**, requiring

necessary road improvements and Transportation Demand Management programs reducing project-related VMT. With regard to consistency with *CEQA Guidelines* Section 15064.3(b), as regulations of SB 743 have not been finalized or adopted by the County, automobile delay remains the measure used to determine the significance of a transportation impact.

During operation, day-to-day trips would be reduced compared to the proposed project as a result of the reduced size of the facility. Similar to the project, the number of added vehicles to the roadway network would not have a discernible effect on roadway operations or levels of service. Under the proposed project, project VMT would result in an increase over existing levels, and would result in a significant and unavoidable impact. Because of the reduced footprint, however, VMT would likewise be reduced by 50 percent, thus reducing the project's total VMT to below significant levels. Therefore, impacts related to *CEQA Guidelines* Section 15064.3(b) would be less than significant under the Reduced Footprint Alternative.

As it relates to increasing hazards due to a geometric design feature or incompatible use, the Reduced Footprint Alternative, similar to the proposed project, would require the use of oversized vehicles during construction that could create a hazard to the public by limiting motorist views. As with the project, this alternative would be required to implement **Mitigation Measure MM 4.17-3**, requiring that all oversized vehicles used on public roadways during construction obtain required permits and approval of a Construction Traffic Control Plan, as well as being required to identify anticipated construction delivery times and vehicle travel routes in advance to minimize construction traffic during AM and PM peak hours.

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 proposed 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 proposed 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 4.17-3**, 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 project VMT under the Reduced Footprint Alternative as compared to the proposed project, the Reduced Footprint Alternative impacts related to transportation would be less compared to the project.

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 proposed project site or the surrounding area, and as such it is determined that the proposed 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** (see **Section 4.5, Cultural Resources**) similar to the mitigation for the proposed 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 proposed project due to the reduction in ground disturbance required under this alternative.

Utilities and Service Systems

Eliminating 46.87 acres 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 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, natural gas, and telecommunications. In addition, construction of the Reduced Footprint Alternative would not substantially alter stormwater drainage. As with the project, the Reduced Footprint Alternative would be required to implement **Mitigation Measure MM 4.7-8** (see **Section 4.7, *Geology and Soils***), which would require the preparation of an Erosion and Sedimentation Control Plan during construction, including BMPs designed to prevent the occurrence of soil erosion and discharge of other construction-related pollutants that could contaminate water quality. The Reduced Footprint Alternative would be required to implement **Mitigation Measures MM 4.19-1** through **MM 4.19-6** in order to reduce all impacts to water, stormwater, wastewater, natural gas, electricity, and telecommunications services. Similar to the proposed project, the Reduced Footprint Alternative 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 **Mitigation Measures MM 4.19-7** and **MM 4.19-8**. The Reduced Footprint Alternative would generate less solid waste compared to the proposed project. However, the Reduced Footprint Alternative would be required to implement **Mitigation Measure MM 4.19-9**, 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 and operational demands in comparison to the proposed project. As described in **Section 4.19, *Utilities and Service Systems***, the proposed project would be served by Cal Water via service laterals located beneath Wible Road. According to the WSA for the proposed project, Cal Water would be able to meet the proposed project's water demand under projected normal, single dry, and multiple dry years. Therefore, Cal Water would be able to meet the reduced 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 Groundwater Sustainability Plan (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.

This Reduced Footprint Alternative is expected to result in reduced impacts at a significant and unavoidable impact to utilities and service systems with Implementation of Mitigation Measures MM 4.19-1 through MM 4.19-9 and impacts would be less compared to the project, as water, wastewater, and solid waste generation would be less than the project due to the reduced footprint and number of employees, yet the proposed project would still be located within the critically overdrafted Kern Subbasin. Impacts would be significant and unavoidable and less the proposed 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 site is located in a rural, sparsely developed area with limited population. 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 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 Local Responsibility Area (LRA) Unzoned, which are considered areas 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 4.9-13 (see Section 4.9, Hazards and Hazardous Materials) and MM 4.15-1**, which would require 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, the proposed project would construct new internal roads from the existing road network to the proposed project that would act as access roads in the event of an emergency. Furthermore, the proposed 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 proposed project.

Similar to the project, development of the proposed project would maintain the existing drainage patterns that currently exist on-site. The Reduced Footprint Alternative would be required to implement a sedimentation, Stormwater Pollution Prevention Plan, and drainage plan as outlined in **Mitigation Measures MM 4.7-8, MM 4.10-1 and MM 4.10-2 (see Section 4.10, Hydrology and Water Quality)** in order to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding on- or off-site. 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.

With implementation of similar mitigation proposed for the project, this alternative is expected to result in less than significant impacts to wildfire. The Reduced Footprint Alternative would likely result in less impact due to the reduced footprint compared to the project.

Comparison of Impacts

Because of the proportional reduction in project size, all construction and operational methods, workforce, and timing for the Reduced Footprint Alternative would be 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 significant and unavoidable impacts associated with aesthetics (project and cumulative), agriculture and forestry resources (project and cumulative), air quality (project and cumulative), GHG emissions (project and cumulative) and hydrology

and water quality (cumulative), transportation and traffic (project and cumulative), and utilities and service systems (cumulative only).

Relationship to Project Objectives

The Reduced Footprint Alternative would still result in the development of a new industrial land use that meets regional demand for a warehouse and logistics facility near SR-99. The alternative would be a visually appealing industrial project that maximizes land use intensity and contributes to the local economy, improves circulation through the construction of new roads and improvement of existing roads, and would be sited in a location that minimizes conflict with residential, conservation, and agricultural uses. As such, the Reduced Footprint Alternative would achieve all of the project objectives listed above in **Section 6.2**, although to a lesser extent than the proposed project due to its reduced scale.

6.7.3 Alternative 3: Alternative Site Alternative

Under the Alternative Site Alternative, the proposed project would be constructed and operated as described in **Chapter 3, Project Description**, at an alternative site within the Mojave Specific Plan Area. The Alternative Site Alternative would be comprised of the same site plans, and would also include construction of a substation, water treatment facility, and associated infrastructure.

Environmental Impact Analysis

Aesthetics

With regard to impacts related to scenic vistas, there are no officially designated scenic vistas within the vicinity of the Mojave Specific Plan Area; however, the viewshed of the Tehachapi Mountains to the West and the San Gabriel Mountains to the south on State Route 14 (SR-14) or west on State Route 58 (SR-58) could be considered a scenic vista. Because of the proximity of both highways to the Mojave Specific Plan Area, the proposed project would be highly visible to motorists on either highway. Impacts would be potentially significant.

Similar to the project, the Alternative Site Alternative is not located in proximity to any Eligible State Scenic Highways and is separated by the San Gabriel Mountains. Given this distance and intervening topography, the Alternative Site Alternative project would not be visible from any Officially Designated or Eligible State Scenic Highway.

Similar to the project, the Alternative Site 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 the collection of debris along the site boundary, to limit vegetation removal, and require the installation of native vegetation. However, similar to the project, because there are no feasible mitigation measures that can be implemented to maintain the landscape character of the project site, impacts to visual resources would remain significant and unavoidable. Cumulative impacts under the Alternative Site Alternative would remain significant and unavoidable as related projects coupled with development of the Alternative Site Alternative would convert land in a presently rural area to a degree that cannot be mitigated, similar to the project.

As the Alternative Site Alternative includes the development of a warehouse and distribution facility, the potential for light and glare impacts would be similar to the project during construction and operation. As such, this alternative would be required to implement **Mitigation Measures MM 4.1-4** and **MM 4.1-5**, which include demonstrating consistency with the applicable provisions of the *Dark Skies Ordinance* (Chapter 19.81 of the Kern County Zoning Ordinance), demonstrating that the proposed project is designed to minimize glare, and demonstrating that the on-site building utilizes non-reflective materials. Impacts related to light and glare under the Alternative Site Alternative site would be less than significant.

The Alternative Site Alternative would have greater overall impacts to aesthetics compared to the project due to the greater impact on scenic vistas; impacts would remain significant and unavoidable but to a greater extent.

Agriculture and Forestry Resources

With regard to agricultural resources, impacts could be greater than the proposed project due to the lack of detail about a specific alternative site. The Mojave Specific Plan carries the objective of providing development consistent with the Kern County General Plan. Without knowledge of the specific site and its zoning, it is conservatively assumed that impacts would be significant and unavoidable due to much of the vacant desert land in the Mojave Specific Plan area already containing agriculturally designated and zoned land. Similar to the proposed project, it is assumed that the proposed project would result in the conversion of designated farmland to nonagricultural uses and would create conflicts with the zoning of the site as determined by the County. Impacts are assumed to be significant and unavoidable, and would be similar to the proposed project.

With regard to conflicts within existing zoning, there are no areas within the Mojave Specific Plan Area that are currently under a Williamson Act Contract. Additionally, there are no areas within the Mojave Specific Plan Area that are designated as forest land or timberland. Therefore, under the Alternative Site Alternative, the proposed project would not conflict with either a Williamson Act Contract or an existing zoning for forestry resources. No impact would occur, and impact would be similar to the proposed project.

The Alternative Site Alternative would have similarly significant and unavoidable impacts compared to the proposed project due to the potential impact on the conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to nonagricultural uses. Despite the Alternative Site Alternative's implementation of similar mitigation measures as the proposed project, impacts would be significant and unavoidable and thus similar to the proposed project.

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 implementation of **Mitigation Measure MM 4.3-1** through **MM 4.3-10**, 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 project-level construction impacts. Overall, based on the above, with implementation of **Mitigation Measure MM 4.3-1** through **MM 4.3-10**, any potential impacts to criteria pollutants designated as nonattainment within the EKAPCD would be reduced and construction of the proposed project 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 proposed 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 proposed project.

With regard to exposure to sensitive receptors, the impact of the Alternative Site Alternative cannot be predicted without knowledge of the specific alternative site and the locations of nearby sensitive receptors. While the proposed project would implement **Mitigation Measure MM 4.3-1** through **MM 4.3-10** to help reduce pollutant concentrations during construction, it is conservatively assumed that impacts would be significant and unavoidable and greater than the proposed project.

With regard to objectionable odors, neither construction nor long-term operations of the proposed project are anticipated to generate any significant objectionable odors. The Alternative Site Alternative would construct and operate the same business activities as the proposed project, and, as such, would similarly not generate any significant objectionable odors. Impacts would thus be less than the proposed project and less than significant.

As determined above, cumulative construction 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. As cumulative construction impacts would be significant and unavoidable, the Alternative Site Alternative would also obstruct the air quality planning goals set forth by EKAPCD. Therefore, similar to the project, impacts would be significant and unavoidable.

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. The Alternative Site Alternative would result in similar overall impacts related to air quality compared to the project.

Biological Resources

With regard to biological resources, impacts could be greater than the proposed project due to the lack of detailed biological resource surveys and field reconnaissance. Without knowledge of the specific site and accompanying biological resources surveys and field reconnaissance, it is conservatively assumed that impacts would be significant and unavoidable due to the likely undisturbed nature of the proposed project site having a greater potential of habitable land for sensitive species. Therefore, impacts to special-status and native plants, as well as special-status or migratory fish and wildlife would be potentially significant, both for the project-level and cumulative impacts, and greater in comparison with the proposed project.

With regard to conflicts with local policies or Habitat Conservation Plans, impacts would be site-specific based on the location chosen for the proposed project. As such, under the Alternative Site Alternative, project and cumulative impacts could be potentially significant and greater than the proposed project.

Overall, project and cumulative impacts under the Alternative Site Alternative would be assumed to be significant and unavoidable due to the lack of a specific project site and associated biological resources surveys and field reconnaissance. Impacts would be greater in comparison with the proposed project.

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 the Alternative Site Alternative, ground disturbance within the project site would be shallow and would be unlikely to result in a potentially significant impact to historical or archaeological resources. This alternative would be required to implement similar mitigation measures as described in **Mitigation Measures MM 4.5-1** through **MM 4.5-3** for the proposed project, as well as to adhere to all federal, state, and local regulations governing cultural resources, including California Penal Code, Section 622.5. However, without accompanying historical or archaeological literature reviews and site surveys, impacts to cultural resources under the Alternative Site Alternative are assumed to be significant and unavoidable.

As described above, without accompanying historical and archaeological literature reviews and site reconnaissance, it is unknown whether the Alternative Site Alternative 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 MM 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 proposed project.

Overall, the Alternative Site Alternative would result in greater cultural resource impacts compared to the project due to the lack of historical and archaeological literature reviews and field surveys. Impacts would be significant and unavoidable.

Energy

With regard to significant consumption of energy resources, the proposed project is anticipated to have a less than significant impact to energy consumption during construction and operational activities, as well as to be in compliance with all State energy efficiency policies. The Alternative Site Alternative would be expected to implement similar energy efficient technologies within the project design, as described in **Mitigation Measures, MM 4.6-1** and **MM 4.6-2**. Given the similar size and activities planned under the Alternative Site Alternative, it is therefore assumed that impacts would be similar to the proposed 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, the Alternative Site Alternative would have similar effects to the proposed project. According to the DOC, the Mojave Specific Plan Area is not located along an Alquist Priolo Fault Trace, in a CGS Liquefaction Zone, or a CGS Landslide Zone. As such, the Alternative Site Alternative would be located in an area similar to the proposed project, and impacts would likewise be similar to the proposed project and less than significant.

Furthermore, the Alternative Site Alternative would adhere to requirements of the NPDES, which includes requirements similar to **Mitigation Measure MM 4.7-8** 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 proposed project. Impacts would be less than significant and similar to the proposed project.

As it relates to unique paleontological resource or site or unique geologic feature, under the Alternative Site Alternative, any ground disturbance within the project site would be shallow and would be unlikely to result in a potentially significant impact to paleontological resources. The Alternative Site Alternative would adhere to all applicable federal, state, and local regulations governing paleontological resources, including Public Resources Code Section 5097.5 and Section 30244. However, without knowledge of the specific alternative site and an accompanying paleontological records search, it is conservatively assumed that impacts would be significant and unavoidable. Therefore, impacts to paleontological resources would be significant and unavoidable and greater than the proposed project.

Based on the above, impacts to geology and soils would be significant and unavoidable under the Alternative Site Alternative due to the conservative assumption that impacts to paleontological resources would be greater than the proposed project. Impacts would be greater than the proposed project.

Greenhouse Gas Emissions

With regard to generation of GHGs, the proposed project's VMT per capita, thus its mobile source emissions from employee VMT, are inconsistent with the targets set forth in the RTP/SCS. Although the proposed project would be required to implement TDM program to reduce VMT required by **Mitigation Measure MM 4.17-2** (see **Section 4.17, *Transportation and Traffic***), it is unclear whether the TDM program would reduce project VMT to below the 19.80 VMT per employee threshold. Therefore, the estimated VMT per capita of the Alternative Site Alternative is also inconsistent with the targets set forth in the RTP/SCS. Despite implementation of similar mitigation measures as **MM 4.8-1** and **MM 4.8-2**, requiring use of electric-powered off-road equipment on-site for daily use and limiting operations to dry storage only, the Alternative Site Alternative would have a similar and significant and unavoidable impacts as the proposed project.

Hazards and Hazardous Materials

With hazardous materials, the Alternative Site Alternative would be similar to the proposed project in the scope of its handling of hazardous materials and exposure of the public to emissions or vectors. The Alternative Site Alternative would require limited use and production of hazardous materials, and these activities would adhere to **Mitigation Measures MM 4.9-2** and **MM 4.9-3**, including the preparation of a Hazardous Materials Business Plan. The Mojave Specific Plan Area is designated Unzoned LRA by CALFire, and as such would not expose people or structures to significant wildfire risk. Additionally, as the uses of the Alternative Site Alternative would be similar to the proposed project, it would not generate vectors or include agricultural waste. However, due to the fact that the specific alternative site is not known, it is impossible to know fully whether the Alternative Site Alternative would be located on a site included on a list of hazardous materials sites. As a result, it is conservatively assumed that it is, and impacts would be significant and unavoidable. As a result, impacts would be greater than the proposed 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, the Alternative Site Alternative could be located within 0.25 mile of the active airport. However, any development within the jurisdiction of the Airport Land Use Compatibility Plan (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 proposed project.

Overall, the Alternative Site Alternative would have a greater impact as compared to the proposed project due to the conservative assumption that it is located on a hazardous materials site. Impacts would be significant and unavoidable.

Hydrology and Water Quality

Similar to the project, the Alternative Site Alternative would include completion of a NPDES completion form, and would be required to implement **Mitigation Measure MM 4.7-8** (see **Section 4.7, *Geology and Soils***), which would require preparation of an Erosion and Sedimentation Control Plan, including 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 would require the provision of a Hazardous Materials Business Plan. Implementation of these mitigation measures would serve to reduce potential 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 proposed project.

As it relates to groundwater supplies, it is impossible to know the impacts that the Alternative Site Alternative would have on the groundwater basin and existing drainage patterns without a site-specific Geotechnical Evaluation and field survey. Similar to the proposed project, the Alternative Site Alternative would feature a water treatment facility and the site would be divided into retention basins to facilitate groundwater recharge. However, without knowledge of the current impervious surface coverage of the Alternative Site Alternative, as well as the existing drainage patterns, it is conservatively assumed that impacts would be greater than the proposed project and significant and unavoidable.

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 significant and unavoidable due to the lack of a specific alternative site and knowledge of the potential effects to stormwater runoff and existing drainage patterns. Impacts would be greater than the proposed project.

Land Use and Planning

With regard to land use consistency, without a specific alternative site, the Alternative Site Alternative would have the possibility of physically dividing an existing community or conflicting with an existing land use plan, policy, or regulation. Like the proposed project, the Alternative Site Alternative would also have the possibility of requiring entitlements for a GPA, ZCC, CUP, Precise Development Plan, Exclusion from Agricultural Preserve, Zone Variance ZV, and Tentative Parcel Map as part of its entitlement process. It is therefore conservatively assumed that impacts would be greater than the proposed project and significant and unavoidable.

Mineral Resources

According to CGS, the Mojave Specific Plan Area is not located on lands classified as having known mineral resources; however, it is directly adjacent to areas classified as MRZ-2 and MRZ-3. Additionally, it is unknown whether the Alternative Site Alternative would be located on a site that contains or used to

contain active or inactive wells. As such, it is conservatively assumed that impacts to mineral resources would be greater than the proposed project.

Overall, due the Alternative Site Alternative'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 significant and unavoidable, as well as greater than the proposed project.

Noise

Under this alternative, as the number of on-site construction equipment is assumed to be the same as the proposed project, and construction activities under the Alternative Site Alternative would not result in any impacts related to noise levels and would not exceed existing thresholds. As with the project, operational activities under the Alternative Site Alternative 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 Measure MM 4.13-1** through **MM 4.13-3**. 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 or decommissioning. However, due to the fact that the specific alternative site is not known, it is impossible to know fully whether operation of the Alternative Site Alternative would involve worker truck trips and agricultural equipment use that would be a sufficient distance from structures (i.e., over 100 feet away from structures). As such, it is conservatively assumed that impacts would be significant and unavoidable.

Overall, the Alternative Site Alternative would generate greater noise and ground vibration impacts to the proposed project due to the assumption that Alternative Site Alternative would be located within 100 feet of another structure. As a result, the Alternative Site Alternative would have a greater impact compared to the proposed project, and impacts would be significant and unavoidable.

Population and Housing

Similar to the proposed project, the Alternative Site Alternative would require a temporary workforce that is assumed to be similar in size to that required for the proposed project. It is anticipated that the construction workforce would commute to the project site from local communities. It is likewise assumed, as for the proposed project, 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 the proposed project. Therefore, impacts under the Alternative Site Alternative would be similar compared to the proposed project.

With regard to displacing housing units or people, it is unknown whether and to what extent housing or people would be displaced as a result of the Alternative Site Alternative without knowledge of a specific site. As a result, it is conservatively assumed that impacts would be greater than the proposed project and potentially significant and unavoidable.

Overall, impacts under the Alternative Site Alternative would be greater than the proposed project due to the unknown effects of the displacement of housing or people. Therefore, impacts would be greater than the proposed project and potentially significant and unavoidable.

Public Services

Similar to the project, construction of the Alternative Site Alternative 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, the Alternative Site Alternative would be required to implement **Mitigation Measure MM 4.9-13** and **MM 4.15-1**, which would require 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 4.15-1** would also reduce fire risks on-site during operation of this alternative. Impacts related to fire protection would be less than significant with mitigation.

With regard to law enforcement protection, the project site would be located in a relatively remote location. As with the proposed project, the increase in traffic associated with the Alternative Site Alternative 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, the additional volume of vehicles associated with workers commuting to the project site during routine maintenance would be minor and is not expected to adversely affect traffic. Therefore, impacts to the CHP patrol are not anticipated.

Furthermore, the Alternative Site Alternative would similarly implement **Mitigation Measures MM 4.15-2** and **MM 4.15-3**, requiring coordination with the County of Kern to pay necessary sales and use taxes, as well as make efforts to hire 50 percent 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 proposed project, it is assumed the construction workforce would commute to the project site each day from local communities under the Alternative Site Alternative. As a result, the Alternative Site Alternative would similarly not induce an increase in resident population that would result in increased use of existing neighborhood or regional parks or other recreational facilities. The Alternative Site Alternative 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 proposed project.

With regard to the inclusion of the construction or expansion of recreational facilities, the Alternative Site Alternative would, like the proposed project, consist of a concrete tilt-up 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 proposed project.

Based on the above, impacts would be less than significant. Given that both the proposed project and the Alternative Site Alternative do not include residences or recreational facilities, impacts related to recreation would be similar compared to the project and less than significant.

Transportation

Similar to the project, during construction of the Alternative Site Alternative, which would require similar construction trips for construction of the warehouse and associated infrastructure, it is anticipated that local traffic would not be significantly impacted with the addition of construction traffic generated under this alternative. During operation, it is impossible to determine the full effects of the Alternative Site Alternative

without site-specific traffic and VMT analyses. As a result, it is conservatively assumed that impacts would be greater than the proposed project and significant and unavoidable.

With regard to consistency with *CEQA Guidelines* Section 15064.3(b), regulations regarding SB 743 compliance have not been finalized or adopted by the County. However, the VMT Memo shows that the proposed project would increase project VMT, and, per OPR standards, would result in a significant and unavoidable impact. Because of the fact that the specific alternative site is not known, it is impossible to know fully whether the Alternative Site Alternative would similarly increase VMT above existing levels. It is therefore conservatively assumed that impacts related to *CEQA Guidelines* Section 15064.3(b) would be significant and unavoidable and similar to the proposed project.

As it relates to increasing hazards due to a geometric design feature or incompatible use, similar to the project, the Alternative Site Alternative would also require the use of oversized vehicles during construction which could create a hazard to the public by limiting motorist views and by the obstruction of space. As with the project, this alternative would be required to implement **Mitigation Measure MM 4.17-3**, requiring that all oversize vehicles used on public roadways during construction obtain required permits and the approval of a Construction Traffic Control Plan, as well as identifying anticipated construction delivery times and vehicle travel routes in advance to minimize construction traffic during AM and PM peak hours. The Alternative Site Alternative would also 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 proposed 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 Alternative Site Alternative and would be similar to the proposed project.

With regard to emergency access, it is unknown whether the proposed project would cause a significant increase in congestion or worsen the existing service levels at nearby intersections and roadway segments without a site-specific traffic analysis. As a result, it is conservatively assumed that impacts would be greater than the proposed project and significant and unavoidable.

Overall, impacts to hazards caused by geometric design features would be similar to the proposed project and less than significant. However, due to the absence of a specific alternative project site and accompanying site-specific traffic and VMT analyses, it is assumed that impacts would be greater than the proposed project and significant and unavoidable.

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 the Alternative Site Alternative, ground disturbance within the project site would be shallow and would be unlikely to result in a potentially significant impact to tribal cultural resources. This alternative would be required to implement similar mitigation measures as described in **Mitigation Measures MM 4.5-1** through **MM 4.5-3** for the proposed project, as well as to adhere to all federal, State, and local regulations governing cultural resources, including California Penal Code, Section 622.5. However, without accompanying site-specific record searches and tribal resource consultations, impacts to cultural resources under the Alternative Site Alternative are assumed to be greater than the proposed project and result in impacts that are significant and unavoidable.

Utilities and Service Systems

As with the proposed project, the construction 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, natural gas, and telecommunications. It is unknown the extent to which the Alternative Site Alternative would alter stormwater drainage in the absence of a specific site and site plan. However, as with the project, the Alternative Site Alternative would be required to implement **Mitigation Measures MM 4.7-8**, requiring the preparation of an Erosion and Sedimentation Control Plan during construction, including BMPs designed to prevent the occurrence of soil erosion and discharge of other construction-related pollutants that could contaminate water quality. An increase in solid waste generation under the Alternative Site Alternative as compared to the project is not anticipated. However, the Alternative Site Alternative would be required to implement **Mitigation Measure MM 4.19-9**, requiring the provision of a recycling coordinator to ensure the separation and proper disposal of recyclable materials and solid waste during construction.

With regard to operation, the Alternative Site Alternative would generate similar water, wastewater, stormwater, electricity, solid waste, and telecommunications demands as the proposed project. As with construction above, and similar to the proposed project, implementation of with Implementation of **Mitigation Measures MM 4.19-1** through **MM 4.19-9** under the Alternative Site Alternative would require the provision of a recycling coordinator to ensure the separation and proper disposal of recyclable materials and solid waste generated during project operation. However, without a site-specific Water Supply Assessment and applicable knowledge of the utility capacity of the Mojave Specific Plan Area, it is conservatively assumed that impacts would be greater than the proposed project and significant and unavoidable.

This alternative could result in significant and unavoidable impacts to utilities and service systems and impacts would be greater compared to the proposed project due to the unknown effect that the Alternative Site Alternative would have on water, wastewater, stormwater, electricity, and solid waste utility providers in the area. Impacts would be greater than the proposed 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 site is located in a rural, sparsely developed area with limited population. However, due to the fact that the specific alternative site is not known, it is impossible to know whether the Alternative Site Alternative would be located along an identified emergency evacuation route or identified in any adopted emergency evacuation plan. Therefore, it is conservatively assumed that impacts regarding impairing an adopted emergency response plan or emergency evacuation plan would be significant and unavoidable.

The project site is designated as LRA Unzoned, which are considered areas with low fire frequency. The potential for wildfire on the project site is not considered high. Similar to the project, the Alternative Site Alternative would be required to implement **Mitigation Measures MM 4.9-13** (see **Section 4.9, Hazards and Hazardous Materials**) and **MM 4.15-1**, 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, the proposed project would construct new internal roads from the existing road network to the proposed project that would act as access roads in the event of an emergency. A new substation would be located on-site and would provide power generation for the proposed project.

However, without a specific alternative site and knowledge of the existing drainage patterns, it is unknown if and to what extent the Alternative Site Alternative would impact existing drainage patterns. However, the Alternative Site Alternative would implement a sedimentation, stormwater, and drainage plan as outlined in **Mitigation Measure MM 4.7-8, MM 4.10-1, and MM 4.10-2 (see Section 4.10, *Hydrology and Water Quality*)** in order to minimize or manage flow concentration and changes in flow depth or velocity so as to minimize erosion, sedimentation, and flooding on- or off-site. As such, similar to the project, the Alternative Site 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.

Overall, it is assumed that the proposed project would result in significant and unavoidable impacts to wildfire due to the unknown location of the project site and the possibility of impairing an emergency evacuation route or being in any adopted emergency evacuation plan. Therefore, impacts to wildfire under the Alternative Site Alternative would be significant and unavoidable and greater than the proposed project.

Comparison of Impacts

The Alternative Site Alternative would potentially result in greater impact to aesthetics, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, transportation, tribal cultural resources, utilities and system services, and wildfires. This alternative would likely result in similar or reduced impacts in all remaining environmental issue areas. This alternative would likely not eliminate any impacts associated with the proposed project.

Relationship to Project Objectives

The Alternative Site Alternative would achieve all of the project objectives listed above in **Section 6.2**, including the project objective related to assisting California in meeting its GHG emissions reduction goals and supporting California's Renewable Portfolio Standards Program. However, because of the uncertainty of the alternative site location, certain impacts, such as aesthetics, agriculture and forestry, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, transportation, tribal cultural resources, utilities and system services, and wildfire could be potentially significant and unavoidable.

6.8 Environmentally Superior Alternative

As presented in the comparative analysis above, and as shown in **Table 6-2**, 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 the Reduced Footprint Alternative. This alternative would not avoid significant impacts associated with the proposed project; however, no impacts would be greater than the proposed project. This alternative would result in less impact to aesthetics, agriculture and forestry resources, air quality, cultural resources, energy, geology and soils, hydrology and water quality, noise, transportation, tribal cultural resources, utilities and service systems and wildfire. Thus, for most environmental issue areas, this alternative would result in fewer environmental impacts, both short-term and long-term, when compared to the project. Therefore, because this alternative reduces impacts to a greater degree than the Alternative Site Alternative, the Reduced Footprint Alternative is considered the Environmentally Superior Alternative.

Chapter 7 **Response to Comments**

This chapter is being reserved for, and will be included with, the Final EIR.

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Chapter 8

Organization and Persons Consulted

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Chapter 8

Organizations and Persons Consulted

8.1 Federal

United States Air Force	United States Environmental Protection Agency, Region IX
United States Army	United States Fish and Wildlife Service
United States Army Corp of Engineers	United States Marine Corps
United States Bureau of Land Management	United States Navy
United States Department of Agriculture, Natural Resource Conservation Service	United States Postal Service

8.2 State of California

California Air Resources Board	California Public Utilities Commission, Energy Division
California Department of Conservation	California Resources Corporation
California Department of Conservation, Geologic Energy Management Division	California State Clearinghouse Office of Planning and Research
California Department of Fish and Wildlife, Fresno Region	California State Lands Commission
California Department of Toxic Substances Control	California State University Bakersfield
California Department of Water Resources	California Department of Transportation, District 6
California Energy Commission	Regional Water Quality Control Board, Central Valley Region
California Highway Patrol	
California Native American Heritage Commission	

8.3 Regional and Local

Adams, Broadwell, Joseph & Cardozo	Joyce LoBasso	Local Agency Formation Commission
AES Midwest Wind Generation-Bill Barnes	Kelly Group–Kate Kelly	Los Angeles Audubon
Angelo Fanucchi	Kern Audubon Society	Los Angeles County Regional Planning Department
	Kern Council of Governments	

Arvin Community Services District Arvin	Kern County Administrative Officer	Lozeau Drury LLP
Arvin Union School District	Kern County Agriculture Department	Native American Heritage Preservation Council of Kern County
AT&T	Kern County Airports Department	Northcutt and Associates
Bakersfield City Planning Department	Kern County Building Department	Pacific Gas and Electric Company
Bakersfield City Public Works Department	Kern County Clerk	Panama-Buena Vista School District
Bolthouse Properties	Kern County Engineering, Surveying and Permit Services—Floodplain Management	Recurrent Energy
California City Planning Department	Kern County Engineering, Surveying and Permit Services—Surveying	Robert Burgett
Carol Bender	Kern County Environmental Health Services Department	San Bernardino County Planning Department
Center for Biological Diversity	Kern County Farm Bureau	San Joaquin Valley Unified Air Pollution Control District
Center on Race, Poverty and the Environmental California Rural Legal Assistance Foundation	Kern County Fire Department	San Luis Obispo County Planning Department
City of Arvin	Kern County Library, Beale Local History Room	Santa Barbara County Resource Management Department
City of Maricopa	Kern County Parks and Recreation Department	Santa Rosa Rancheria
City of McFarland	Kings County Planning Agency	Beyond Coal Campaign/Sierra Club—Sarah K. Friedman
City of Ridgecrest	Kern County Public Health Services Department	Sierra Club—Kern Kaweah Chapter
City of Shafter	Kern County Public Works Department	Southern San Joaquin Valley Archaeological Information Center
City of Taft	Kern County Sheriff Department	Structure Cast
City of Tehachapi	Kern County Superintendent of Schools	Tehachapi Area Association of Realtors—Carol Lawhon
City of Wasco	Kern County Waste Management Department	Terra-Gen Power, LLC—Randy Hoyle
Congentrix Sunshine, LLC	Kern County Water Agency	Terra-Gen Power, LLC—Darren Kelly
David Walsh	Kern High School District	Thomas Roads Improvement Program
Defenders of Wildlife		
Delano City Planning		
Department of Consumer Affairs		
Edison Water Storage District		
EDP Renewables Company		
Fotowatio Renewable Ventures		
General Shafter School District		

Iberdrola Renewables—Michael Strickler	Kern Mosquito Abatement District	Tulare County Planning and Development Department
Indian Wells Valley Groundwater Authority	Kern River Groundwater Sustainability Agency	Ventura County RMA Planning Division
Inyo County Planning Department	Leadership Counsel for Justice and Accountability	Wind Stream, LLC
Jeff Modrzejewski	LIUNA	

8.4 Other

Big Pine Paiute Tribe of the Owens Valley	Native American Heritage Council of Kern County
Chumash Council of Bakersfield	San Fernando Band of Mission Indians
David Laughing Horse Robinson	Santa Rosa Rancheria
Kern Valley Indian Council	Tejon Indian Tribe
Kitanemuk and Yowlumne Tejon Indians	Tubatulabals of Kern County
Lone Pine Paiute-Shoshone Reservation	Tule River Indian Tribe

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Chapter 9

List of Preparers

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Kern County Planning and Natural Resources Department

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Terrance Smalls–Supervising Planner

Mark Tolentino–Staff Planner

9.2 Technical Assistance

FirstCarbon Solutions (FCS)

Jason Brandman–Project Director

Angela Wolfe–Senior Project Manager

Brittany Hagen, MBA–Project Manager

Phil Ault, LEED® AP–Director of Noise and Air Quality

Michael Tuma, PhD–Principal Biologist

Dana DePietro, PhD, RPA–Director of Cultural Resources

Isobel Cooper–Environmental Services Analyst

Spencer Churchill–Environmental Services Analyst

Megan Starr, JD–Legal Counsel

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Kimber Johnson–Senior Air Quality Scientist

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Natalie Adame–Archaeologist

Susie Harris–Publications Manager

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Melissa Ramirez–Document Specialist

Karlee McCracken–GIS Specialist

Sebastian Macias–GIS Specialist

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Chapter 10

Bibliography

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Chapter 10 Bibliography

- 2016 California Fire Code. California Code of Regulations, Title 24, Part 9, effective January 1, 2017.
- Arnold, Jeanne E. 1987. *Craft Specialization in the Prehistoric Channel Islands, California*. University of California Press, Berkeley.
- Association of Environmental Professionals (AEP). 2023. *California Environmental Quality Act (CEQA) Statute and Guidelines*. Available at: https://www.califaep.org/docs/CEQA_Handbook_2023_final.pdf. Accessed November 2023.
- Bakersfield. 2021. Available at: <https://www.bakersfield.com/special/150-years/timeline-150-years-of-kern-county-history/>. Accessed November 2023.
- Beardsley, R.K. 1948. Cultural Sequences in Central California Archaeology. *American Antiquity* 14:1–28.
- Beardsley, R.K. 1954. Temporal and Areal Relationships in Central California Archaeology. Berkeley: University of California Archaeological Survey Reports 25.
- Beck, W.A. and Williams, D.A. 1972. *California: A history of the Golden State*. Doubleday Books.
- Bennyhoff, J. 1950. Californian Fish Spears and Harpoons. *University of California Anthropological Records* 9(4):295-338.
- Blackburn, Thomas C., and Lowell John Bean, 1978. Kitanemuk in California. Edited by R. F. Heizer. *Handbook of North American Indians*. Vol. 8, pp. 564–569. W. C. Sturtevant, general editor. Smithsonian Institution. Washington, D.C., 1978.
- Brewer, Chris. 2001. *Historic Kern County: An Illustrated History of Bakersfield and Kern County*. Historical Publishing Network, A division of Lammert Publications, Inc. San Antonio, Texas.
- California Air Pollution Control Officers Association (CAPCOA). 2022. *California Emissions Estimator Model (CalEEMod) User’s Guide, Version 2022.1*. Available at: https://www.caleemod.com/documents/user-guide/CalEEMod_User_Guide_v2022.1.pdf. Accessed November 2023.
- California Air Resources Board (ARB) and American Lung Association of California. 2007. *Recent Research Findings: Health Effects of Particulate Matter and Ozone Air Pollution*. November 2007.
- California Air Resources Board (ARB) and California Air Pollution Control Officers Association (CAPCOA). 2015. *Risk Management Guidance for Stationary Sources of Air Toxics*. Available at: <https://ww2.arb.ca.gov/sites/default/files/classic/toxics/rma/rmgssat.pdf>. Accessed November 13, 2023.
- California Air Resources Board (ARB). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles.*, October. Available at: <http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf>. Accessed February 2020.

- California Air Resources Board (ARB). 2008. Climate Change Scoping Plan a Framework for Change Pursuant to AB 32 The California Global Warming Solutions Act of 2006. Available at: https://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf. Accessed November 2023.
- California Air Resources Board (ARB). 2009. *History of Sulfates Air Quality Standard*. Available at: <http://www.arb.ca.gov/research/aaqs/caaqs//sulf-1/sulf-1.htm>. Accessed February 2020.
- California Air Resources Board (ARB). 2012. California's 2005-2020 Greenhouse Gas Emissions Inventory – 2022 Edition. Available at: https://www.kerncog.org/wp-content/uploads/2011/09/kc_ghg_final_report_052012.pdf. Accessed November 2023.
- California Air Resources Board (ARB). 2014a. California Greenhouse Gas Emission Inventory: 2000–2012, May 2014. Available at: https://ww3.arb.ca.gov/cc/inventory/pubs/reports/ghg_inventory_00-12_report.pdf. Accessed November 2023.
- California Air Resources Board (ARB). 2014b. Climate Change Scoping Plan: Building on the Framework. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf. Accessed December 2023.
- California Air Resources Board (ARB). 2016. AB 32 Global Warming Solutions Act of 2006. Available at: <https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006>. Accessed November 2023.
- California Air Resources Board (ARB). 2017. California's 2017 Climate Change Scoping Plan: The strategy for achieving California's 2030 greenhouse gas target. November. Available at: https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017_es.pdf. Accessed November 2023
- California Air Resources Board (ARB). 2017. Clean Car Standards—Pavley, Assembly Bill 1493. Available at: <http://www.arb.ca.gov/cc/ccms/ccms.htm>. Accessed November 2023.
- California Air Resources Board (ARB). 2020. California Sustainable Freight Initiative: Concept Paper for the Freight Handbook. Available at: <https://ww2.arb.ca.gov/resources/documents/concept-paper-freight-handbook>. Accessed November 14, 2023.
- California Air Resources Board (ARB). 2021 Amendments to the Small Off-Road Engine Regulations. Available at: https://ww2.arb.ca.gov/sites/default/files/2023-05/2021%20Amendments%20Fact%20Sheet%20-%20English_0.pdf. Accessed November 2023.
- California Air Resources Board (ARB). 2022. Scoping Plan Executive Summary. Available at: <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp-es.pdf>. Accessed November 2023.
- California Air Resources Board (ARB). 2022. Final Regulation Order: High Priority and Federal Fleet Requirements. Available at: <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/ac/acffro21.pdf>. Accessed November 2023.
- California Air Resources Board (ARB). 2022. iAdam Air Quality Data Statistics (2020, 2021, 2022). Available at: <https://www.arb.ca.gov/adam/topfour/topfour1.php>. Accessed December 2023.

- California Air Resources Board (ARB). 2022a. 2022 Scoping Plan for Achieving Carbon Neutrality. Available at: <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>. Accessed December 2023.
- California Air Resources Board (ARB). 2022b. California's Greenhouse Gas Emissions for 2000-2020: Trend of Emissions and Other Indicators. Available at: https://ww2.arb.ca.gov/sites/default/files/classic/cc/inventory/2000-2020_ghg_inventory_trends.pdf. Accessed November 2023.
- California Air Resources Board (ARB). 2023. Emission FACTors (EMFAC) Model EMFAC2021 v1.0.2. Available at: <https://arb.ca.gov/emfac/emissions-inventory/ff7e9c2bfa5f00399db94254889612576459cfb2>. Accessed November 2023.
- California Air Resources Board (ARB). 2023a. EMFAC2017 Web Database Version 1.0.7. Available at: <https://www.arb.ca.gov/emfac/2017/>. Accessed November 2023.
- California Air Resources Board (ARB). 2023a. Impacts of Multiple Climate Change Stressors on Health in California. Available at: <https://ww2.arb.ca.gov/resources/documents/impacts-multiple-climate-change-stressors-health-california>. Accessed November 2023.
- California Air Resources Board (ARB). 2023b. 2020 Mobile Source Strategy. Available at: <https://ww2.arb.ca.gov/resources/documents/2020-mobile-source-strategy>. Accessed November 14, 2023.
- California Air Resources Board (ARB). 2023b. Advanced Clean Cars Program. Available at: <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program>. Accessed November 2023.
- California Air Resources Board (ARB). 2023c. 2020 Mobile Source Strategy, On-Road Heavy Duty Tool. Available at: <https://arb.ca.gov/emfac/meta/on-road-hdv>. Accessed November 14, 2023.
- California Air Resources Board (CARB). 2018a. AB 32 Global Warming Solutions Act of 2006. September 28, 2018. Available at: <https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006>. Accessed: January 2024.
- California Department of Agriculture (USDA) and Measurement Standards. 2021. Kern County Agricultural Crop Report, 2021. Available at: www.kernag.com/caap/crop-reports/crop20_29/crop2021.pdf. Accessed May 2023.
- California Department of Conservation (DOC). 2000. A General Location Guide for Ultramafic Rocks in California- Areas More Likely to Contain Naturally Occurring Asbestos. August. Available at: https://www.arb.ca.gov/toxics/asbestos/ofr_2000-019.pdf. Accessed November 2023.
- California Department of Conservation (DOC). 2000. Guidelines for Classification and Designation of Mineral Lands. Available at: <https://www.conservation.ca.gov/smgb/Guidelines/Documents/ClassDesig.pdf>. Accessed August 2023.
- California Department of Conservation (DOC). 2022a. California Important Farmland Finder. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed May 2023.
- California Department of Conservation (DOC). 2022a. California Important Farmland Finder. Available at: <https://maps.conservation.ca.gov/DLRP/CIFF/>. Accessed May 2023.

- California Department of Conservation (DOC). 2022b. California Williamson Act Enrollment Finder. Available at: <https://gis.conservation.ca.gov/portal/apps/webappviewer/index.html?id=180acf4745ff40a5a764c65a4a8278eb>. Accessed May 2023.
- California Department of Conservation (DOC). 2023. Alquist-Priolo Earthquake Fault Zones. Available at: <https://www.conservation.ca.gov/cgs/alquist-priolo#:~:text=%28A%20trace%20is%20a%20line%20on%20the%20earth%27s,minimum%20distance%20from%20the%20fault%20%28generally%20fifty%20feet%29>. Accessed August 2023.
- California Department of Conservation (DOC). 2023a. Agricultural Preserves. Available at: <https://www.conservation.ca.gov/dlrp/wa/Pages/contracts.aspx>. Accessed February 6, 2024.
- California Department of Conservation (DOC). 2023a. Geologic Energy Management District. Available at: <https://www.conservation.ca.gov/calgem>. Accessed June 22, 2023.
- California Department of Conservation (DOC). 2023a2023b. Important Farmland Categories. Available at: <https://www.conservation.ca.gov/dlrp/fmmp/Pages/Important-Farmland-Categories.aspx>. Accessed May 2023.
- California Department of Conservation (DOC). 2023b. CGS Seismic Hazards Program: Liquefaction Zones. Available at: <https://maps-cnra-cadoc.opendata.arcgis.com/datasets/cadoc::cgs-seismic-hazards-program-liquefaction-zones/explore?location=35.244646%2C-118.933863%2C11.00>. Accessed August 2023.
- California Department of Conservation (DOC). 2023b. Frequently Asked Questions, Property Development in an Oil Field Questions. Available at: <https://www.conservation.ca.gov/calgem/faqs#Development>. Accessed August 2023.
- California Department of Conservation (DOC). 2023b2023c. Williamson Act Program Overview. Available at: https://www.conservation.ca.gov/dlrp/wa/Pages/wa_overview.aspx. Accessed May 2023.
- California Department of Conservation (DOC). 2023c. SMARA Mineral Land Classification. Available at: <https://www.conservation.ca.gov/cgs/minerals/mineral-land-classification-smara#:~:text=The%20primary%20products%20of%20CGS%20mineral%20land%20classification,developing%20land-use%20plans%20and%20when%20making%20land-use%20decisions>. Accessed August 2023.
- California Department of Conservation (DOC)., 2018. Farmland Mapping and Monitoring Program, Kern County, Important Farmland Data Availability, Historic Land Use Conversion 1988-Present. Available at: www.conservation.ca.gov/dlrp/fmmp/Pages/Kern.aspx. Accessed May 2023.
- California Department of Finance (CDF). 2023. Estimates-E1, Population and Housing Estimates for Cities, Counties, and the State—January 1, 2022 and 2023. Available at: <https://dof.ca.gov/forecasting/demographics/estimates-e1/>. Accessed May 2023.
- California Department of Finance (CDF). 2023a. E-5 Population and Housing Estimates for Cities, Counties, and the State—January 1, 2022 and 2023. Available at: <https://dof.ca.gov/forecasting/demographics/estimates-e1/>. Accessed October 26, 2023.

- California Department of Finance (CDF). 2023a. E-5 Population and Housing Estimates for Cities, Counties, and the State–January 1, 2022 and 2023. Available at: <https://dof.ca.gov/forecasting/demographics/estimates-e1/>. Accessed October 26, 2023.
- California Department of Finance (CDF). 2023a. E-55 Population and Housing Estimates for Cities, Counties, and the State–January 1, 2022 and 2023. Available at: <https://dof.ca.gov/forecasting/demographics/estimates-e1/>. Accessed October 26, 2023.
- California Department of Finance (CDF). 2023b. P-2: County Population Projections (2020-2060). Available at: <https://dof.ca.gov/forecasting/demographics/projections/>. Accessed October 26, 2023.
- California Department of Finance (CDF). 2023c. E-1 Population and Housing Estimates for Cities, Counties, and the State–January 1, 2022 and 2023. Available at: <https://dof.ca.gov/forecasting/demographics/estimates-e1/>. Accessed February 8, 2024.
- California Department of Fish and Wildlife (CDFW). 2000. Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in California's Central Valley. Swainson's Hawk Technical Advisory Committee. Sacramento, California. May 31, 2000. Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83990&inline>
- California Department of Fish and Wildlife (CDFW). 2012. Staff Report on Burrowing Owl Mitigation. Sacramento: California Department of Fish and Game.
- California Department of Fish and Wildlife (CDFW). 1994. Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (*Buteo swainsoni*) in the Central Valley of California. Sacramento, California. November 8, 1994. Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83992&inline#:~:text=Since%20over%2095%25%20of%20Swainson's,urban%20development%20and%20other%20changes.>
- California Department of Fish and Wildlife (CDFW). 2023a. Biogeographic Information and Observation System (BIOS 6). Available at: <https://map.dfg.ca.gov/bios/>. Accessed June 6, 2023.
- California Department of Fish and Wildlife (CDFW). 2023b. California Natural Community List. Available at: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline>
- California Department of Forestry and Fire Protection (CAL FIRE). 2007a. Fire Hazard Severity Zones in SRA: Kern County. Adopted November 7, 2007.
- California Department of Forestry and Fire Protection (CAL FIRE). 2007b. Fire Hazard Severity Zones in LRA: Kern County. September 17, 2017.
- California Department of Forestry and Fire Protection (CAL FIRE). 2007. Draft Fire Hazard Severity Zones in LRA, Kern County. Available at: https://osfm.fire.ca.gov/media/6686/fhszl06_1_map15.pdf. Accessed May 2023.
- California Department of Forestry and Fire Protection (CAL FIRE). 2022. California Statewide Fire Map. Kern County State Responsibility Area Fire Hazard Severity Zones. Available at: https://osfm.fire.ca.gov/media/u14lgzic/fhsz_county_sra_11x17_2022_kern_ada.pdf. Accessed January 2020May 8, 2023.
- California Department of Forestry and Fire Protection (CAL FIRE).2023. Fire Protection. Available at: <https://www.fire.ca.gov/what-we-do/fire-protection>. Accessed May 22, 2023.

- California Department of Forestry and Fire Protection (CAL FIRE). 2007. Draft Fire Hazard Severity Zones in LRA, Kern County. Available at: https://osfm.fire.ca.gov/media/6686/fhszl06_1_map15.pdf. Accessed May 2023.
- California Department of Forestry and Fire Protection (CAL FIRE). 2022. Kern County State Responsibility Area Fire Hazard Severity Zones. Available at: osfm.fire.ca.gov/media/u14lgzic/fhsz_county_sra_11x17_2022_kern_ada.pdf. Accessed May 8, 2023.
- California Department of Forestry and Fire Protection (CAL FIRE). 2023a. Incident Map. Available at: <https://www.fire.ca.gov/incidents>. Accessed May 8, 2023.
- California Department of Forestry and Fire Protection (CAL FIRE). 2023b. Fire and Resource Assessment Program (FRAP) database, Fire Perimeters. Available at <https://calfire-forestry.maps.arcgis.com/apps/mapviewer/index.html?layers=e3802d2abf8741a187e73a9db49d68fe>. Accessed May 8, 2023.
- California Department of Off-Highway Motor Vehicle Recreation. 2023. Hungry Valley SVRA. Available at: https://ohv.parks.ca.gov/?page_id=1192. Accessed November 1, 2023.
- California Department of Parks and Recreation (DPR). 2023a. Antelope Valley California Poppy Reserve. Available at: https://www.parks.ca.gov/?page_id=627. Accessed November 1, 2023.
- California Department of Parks and Recreation (DPR). 2023b. Find a California State Park. Kern County. Available at: <https://www.parks.ca.gov/ParkIndex>. Accessed November 2023
- California Department of Parks and Recreation (DPR). 2023c. Fort Tejon State Historic Park. Available at: https://www.parks.ca.gov/?page_id=585. Accessed November 1, 2023.
- California Department of Resources Recycling and Recovery (CalRecycle). 2019a. SWIS Facility Detail, Bakersfield Metropolitan (Bena) Sanitary Landfill (15-AA-0273). Available at: <https://www2.calrecycle.ca.gov/SolidWaste/SiteActivity/Details/3931?siteID=742>. Accessed November 17, 2023.
- California Department of Resources Recycling and Recovery (CalRecycle). 2019b. Estimated Solid Waste Generation Rates. Available at: <https://www2.calrecycle.ca.gov/wastecharacterization/general/rates>. Accessed November 29, 2023.
- California Department of Resources Recycling and Recovery (CalRecycle). 2023. About CalRecycle, Available at: <https://calrecycle.ca.gov/aboutus/>. Accessed November 30, 2023.
- California Department of Toxic Substances Control (DTSC). 2023. EnviroStor Database findings. Available at: <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=bakersfield>. Accessed November 29, 2023.
- California Department of Toxic Substances Control (DTSC). 2023. EnviroStor Database. Available at: <https://www.envirostor.dtsc.ca.gov/public/map/?myaddress=Panama+Ln+Kern+County>. Accessed June 22, 2023.
- California Department of Transportation (Caltrans). 2016. Project Development Procedures Manual, Chapter 27: Access Control Modification. Available at: <http://www.dot.ca.gov/design/manuals/pdpm/chapter/chapt27.pdf>. Accessed September 20, 2019.

- California Department of Transportation (Caltrans). 2018. California Scenic Highway Mapping System, Kern County. Available at <https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aaca>. Accessed October, 2023.
- California Department of Transportation (Caltrans). 2020. Traffic Noise Analysis Protocol. April.
- California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. September.
- California Department of Water Resources (DWR). 2013. California Water Plan 2013: Tulare Lake Hydrologic Region Report. Available at: <https://cawaterlibrary.net/document/california-water-plan-2013-tulare-lake-hydrologic-region-report/>. Accessed June 2023.
- California Department of Water Resources (DWR). 2023. California's Groundwater Levels: Groundwater Live. Available at: <https://storymaps.arcgis.com/stories/b3886b33b49c4fa8adf2ae8bdd8f16c3>. Accessed August 2023.
- California Division of Land Resource Protection (DLRP). 2015. California Farmland Conversion Report 2012-2014. Available at: https://www.conservation.ca.gov/dlrp/fmmp/Pages/2012-2014_Farmland_Conversion_Report.aspx. Accessed February 8, 2024.
- California Employment Development Department (EDD). 2021. Unemployment Rates (Labor Force). Available at: <https://labormarketinfo.edd.ca.gov/cgi/dataanalysis/labforceselection.asp?menuchoice=labforce>. Accessed February 7, 2024.
- California Employment Development Department (EDD). 2023. Bakersfield Metropolitan Statistical Area (MSA) (Kern County). Available at: [https://labormarketinfo.edd.ca.gov/file/lfmonth/bake\\$pds.pdf](https://labormarketinfo.edd.ca.gov/file/lfmonth/bake$pds.pdf). Accessed October 26, 2023.
- California Energy Commission (CEC). 2016a. 2016–2017 Investment Plan Update for the Alternative and Renewable Fuel and Vehicle Technology Program, May 2016. Available at: <https://www.energy.ca.gov/publications/2016/2016-2017-investment-plan-update-alternative-and-renewable-fuel-and-vehicle> November 2023.
- California Energy Commission (CEC). 2016b. 2015 Integrated Energy Policy Report, June 2016. Available at: <https://www.energy.ca.gov/publications/2016/2015-integrated-energy-policy-report>. Accessed November 2023.
- California Environmental Protection Agency (Cal/EPA). 2023. Hazardous Materials Business Plan FAQ. Available at: <https://calepa.ca.gov/hazardous-materials-business-plan-program/hazardous-materials-business-plan-faq/>. Accessed November 2023.
- California Geologic Energy Management Division (CalGEM). 2023. Well Finder. Available at: <https://maps.conservation.ca.gov/calGEM/wellfinder/v2/#/-119.03907/35.23790/13>. Accessed June 22, 2023.
- California Geologic Energy Management Division (CalGEM). 2023. Well Finder. Available at: <https://maps.conservation.ca.gov/calGEM/wellfinder/v2/#/-119.03907/35.23790/13>. Accessed June 22, 2023.

- California Geologic Survey (CGS). 2002. Note 36: California Geomorphic Provinces, revised December 2002. Available at: <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-36.pdf>. Accessed August 2023.
- California Geologic Survey (CGS). 2002b. Note 17 Generalized Geologic Map of California. Available at: <https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-17.pdf>. Accessed August 2023.
- California Geologic Survey (CGS). 2010. Geologic Map of California. Available at: <https://maps.conservation.ca.gov/cgs/gmc/>. Accessed August 2023.
- California Geologic Survey (CGS). 2018. Earthquake Fault Zones. A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California. Available at: https://www.conservation.ca.gov/cgs/documents/publications/special-publications/SP_042-a11y.pdf. Accessed August 2023.
- California Highway Patrol (CHP). 2023a. Find an Office. Available at: <https://www.chp.ca.gov/home/about-us/organizational-chart>. Accessed May 21, 2023.
- California Highway Patrol (CHP). 2023b. Central Division. Available at: <https://www.chp.ca.gov/Find-an-Office/Central-Division>. Accessed May 21, 2023.
- California Native Plant Society (CNPS). 2021. Inventory of Rare and Endangered Plants, (online edition, version 8-03). Available at: <http://www.rareplants.cnps.org/>. Accessed June 6, 2023.
- California Natural Resources Agency. 2018. 2018 Amendments and Additions to the State CEQA Guidelines, Final Adopted Text, December 28. Available at: http://resources.ca.gov/ceqa/docs/2018_CEQA_FINAL_TEXT_122818.pdf. Accessed November 2023.
- California Office of the Attorney General. 2022. Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act. Available at: <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf>. Accessed November 14, 2023.
- California Office of the Attorney General. 2022. Warehouse Projects: Best Practices and Mitigation Measures to Comply with the California Environmental Quality Act. Available at: <https://oag.ca.gov/system/files/media/warehouse-best-practices.pdf>. Accessed November 14, 2023.
- California Public Utilities Commission (CPUC). 2019. Renewables Portfolio Standard (RPS) Program. Available at <https://www.cpuc.ca.gov/rps/>. Accessed November 2023.
- California Public Utilities Commission (CPUC). 2019. RPS Program Overview. Available at: http://www.cpuc.ca.gov/RPS_Overview/. Accessed November 2023.
- California Public Utilities Commission (CPUC). 2021. California Renewables Portfolio Standard (RPS). Available at: <https://www.cpuc.ca.gov/rps/>. Accessed November 2023.
- California State Water Resources Control Board (State Water Board). n.d. GeoTracker database finding. Available at: <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=bakersfield>. Accessed November 29, 2023.

- California State Water Resources Control Board (State Water Board). 2023. Porter-Cologne Water Quality Control Act. Available at: https://www.waterboards.ca.gov/laws_regulations/docs/portercologne.pdf. Accessed June 2023.
- California State Water Resources Control Board (State Water Board). 2023. GeoTracker. Available at: <https://geotracker.waterboards.ca.gov/map/?CMD=runreport&myaddress=Wible+Rd+and+Houghton+Rd>. Accessed June 22, 2023.
- California Water Service (Cal Water). 2021. 2020 Urban Water Management Plan. Bakersfield District. Available at: https://www.calwater.com/docs/uwmp2020/BK_2020_UWMP_FINAL.pdf. Accessed November 17, 2023.
- California Water Service Company (Cal Water). 2021. 2020 Urban Water Management Plan. Available at: https://www.calwater.com/docs/uwmp2020/BK_2020_UWMP_FINAL.pdf. Accessed June 2023.
- Center for Disease Control and Prevention (CDC). 2020a. Symptoms of Coronavirus. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>. Accessed November 2023.
- Center for Disease Control and Prevention (CDC). 2020b. How COVID-19 Spreads. Available at: <https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/how-covid-spreads.html>. Accessed November 2023.
- Chartkoff J.L. and K.K. Chartkoff. 1984. *The Archaeology of California*. Menlo Park. Stanford University Press.
- City of Bakersfield and Kern County. 2007. Metropolitan Bakersfield General Plan. Available at: https://psbweb.co.kern.ca.us/planning/pdfs/mbgp/mbgp_complete.pdf.
- City of Bakersfield. 2023. Bakersfield Municipal Airport web page. Available: <https://www.bakersfieldcity.us/565/Bakersfield-Municipal-Airport>. Accessed November 16, 2023.
- City of Bakersfield. 2023a. Bakersfield Recreation & Parks Locator. Available at: <https://cob.maps.arcgis.com/apps/webappviewer/index.html?id=ee88fc120387417ca6a58c149bbd1855>. Accessed May 21, 2023.
- City of Bakersfield. 2023b. Recreation & Parks. Available at: <https://www.bakersfieldcity.us/297/Recreation-Parks>. Accessed May 21, 2023.
- Cook, S.F. 1976. *The Population of the California Indians 1769–1970*. University of California Press. Berkeley, California.
- Coues, Elliot, ed. 1900. *On the Trail of a Spanish Pioneer: The Diary and Itinerary of Francisco Garces (2 Vols.)*. New York: Francis P. Harper
- County of Kern Parks and Recreation Department. 2010. Parks and Recreation Master Plan. Available at: <https://www.kerncounty.com/home/showpublisheddocument/2148/637127126894370000>. Accessed May 21, 2023.
- County of Kern Parks and Recreation Department. 2010. Parks and Recreation Master Plan. May.
- County of Kern. 2015. Kern County Integrated Waste Management Plan 2015 Amendment. <https://itsapps.kerncounty.com/clerk/minutes/granicus/2325775/2325796/2325801/2325850/2326098/>

- Source%20Reduction%20and%20Recycling%20Element%20Amendment2326098.pdf. Accessed October 13, 2023.
- County of Kern. 2021. Kern County Municipal Code, Ch. 8.36 Noise Control. Available at: http://kerncounty-ca.elaws.us/code/coor_title8_ch8.36_sec8.36.020. Accessed November 2023.
- County of Kern.,2020. Kern Multi-Jurisdiction Hazard Mitigation Plan. Available at: <http://mitigatehazards.com/county-of-kern/kern-hmp-docs/>. Accessed November 29, 2023.
- Department of Homeland Security (DHS). 2023. Hazardous Materials Incidents. Available at: <http://www.ready.gov/hazardous-materials-incidents>. Accessed November 29, 2023.
- Dockery, D. W. and Pope, C.A., III, 2006. Health Effects of Fine Particulate Air Pollution: Lines that Connect. *Journal of the Air and Waste Management Association*. Volume 56, 2006.
- EKI Environment and Water, Inc. (EKI). 2023. Water Supply Assessment. November 2023.
- Farquhar, F.P. 1928. Spanish discovery of the Sierra Nevada. San Francisco, California: Sierra Club, *Bulletin*, XIII, (1).
- Farr, Tom G.; Jones E., Cathleen; and Liu, Zhen, 2017. Progress Report: Subsidence in California, March 2015–September 2016. Available at: <https://cawaterlibrary.net/document/progress-report-subsidence-in-california-march-2015-september-2016/>. Accessed August 2023.
- Federal Emergency Management Agency (FEMA). 2008. FEMA’s National Flood Hazard Layer (NFHL) Viewer. Available at: [https:// hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd](https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd). Accessed June 2023.
- Federal Highway Administration (FHWA). 2015. Visual Impact Assessment for Highway Projects. (Publication No. FHWA-HI-88-054). Washington, D.C.
- Federal Highway Administration (FHWA). 2021a. About America’s Byways. Available. Accessed October 2023.
- Federal Highway Administration (FHWA). 2021b. National Scenic Byways & All American Roads—California. Available at: <https://fhwaapps.fhwa.dot.gov/bywaysp/States/Show/CA>. Accessed October 2023.
- Federal Register. 1983. Occupational Noise Exposure; Hearing Conservation Amendment. March 8.
- Federal Transit Administration (FTA). 2018. Transit Noise and Vibration Impact Assessment Manual. September.
- Fierro, Maria A. et al., 2001. Adverse Health Effects of Exposure to Ambient Carbon Monoxide. 2001.
- FirstCarbon Solutions (FCS). 2023a. Air Quality, Greenhouse Gas Emissions, and Energy Analysis Report Westside Industrial Project Kern County, California. December.
- FirstCarbon Solutions (FCS). 2023b. Biological Resources Assessment Ware Malcomb Industrial Project Kern County, California. April 28, 2023
- FirstCarbon Solutions (FCS). 2023c. Phase I Cultural Resources Assessment.

- FirstCarbon Solutions (FCS). 2023d. Noise Impact Analysis Report Westside Industrial Project.
- Flint, Sandra S., Dennis P. McDougall, Kathleen Jernigan, and Lisa Anderson. 2005. Cultural Resources Surveys for the Kern Delta Water District Water Banking and In Lieu Supply Project, Kern County, California. Applied EarthWorks, Inc. Fresno, California. Prepared for Jud Munroe Consulting Services, San Rafael, California, on behalf of Black & Veatch, Irvine, California.
- Fredrickson, D.A. 1973. Early Cultures of the North Coast Ranges, California. Unpublished PhD dissertation, Department of Anthropology, University of California, Davis.
- Gayton, A.H, et al. 1948. Yokuts and Western Mono Ethnography. University of California Press. Berkeley and Los Angeles.
- General Shafter School District. 2023. Welcome to General Shafter School District. Available at: <https://generalshafter.org>. Accessed May 21, 2023.
- Geosyntec Consultants. 2023. Phase I Environmental Site Assessment, June 13, 2023.
- Google Earth, 2022. Available at: <https://www.google.com/earth/>. Accessed June 6, 2023.
- Grant, Campbell. 1978 Chumash: Introduction. In Handbook of North American Indians, Volume 8, California. Pp. 505-508. Robert F. Heizer, volume editor, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Greenwood and Associates. 2012. Cultural Resources Existing Conditions Report. Fresno Central Southeast Area Specific Plan.
- Greenwood, Roberta S. 1978. Obispeño and Purisimeño Chumash. In Handbook of North American Indians, Volume 8, California. Pp. 520-5523. Robert F. Heizer, volume editor, William C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Harrington, John P. 1916. Unpublished notes. Interview with J. Olivas and M. Magdalena. Smithsonian Institution. Included in King, Chester and Thomas C. Blackburn (1978). Tataviam. In Handbook of North American Indians, Volume 8, California. Edited by Robert F. Heizer, W.C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- Harvard. 2020. Exposure to air pollution and COVID-19 mortality in the United States: A nationwide cross-sectional study (Updated April 24, 2020). Available at: <https://projects.iq.harvard.edu/covid-pm>. Accessed November 2023.
- Heizer, R. F., ed. 1978. Handbook of North American Indians, Vol. 8: California. Washington, D.C. Smithsonian Institution.
- Hickman, J.C., ed., 1993. The Jepson Manual: Higher Plants of California. University of California Press, Berkeley and Los Angeles, CA.
- Holshue, et al. 2020. First Case of 2019 Novel Coronavirus in the United States. March 5, 2020. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7092802/>. Accessed November 2023.
- Hyslop, S.G., 2019. Contest for California: From Spanish Colonization to the American Conquest (Vol. 2). University of Oklahoma Press.
- Illuminating Engineering Society (IES). 2000. The Lighting Handbook, 9th Edition.

- Intergovernmental Panel on Climate Change (IPCC). 2001. Working Group II Impacts, Adaptation, and Vulnerability. Available at: <https://www.ipcc.ch/working-group/wg2/?idp=326>. Accessed January 2024.
- International Code Council Digital Codes (ICC). 2023. 2022 California Green Building Standards Code, Title 24, Part 11 (CALGreen). Available at: Accessed November 2023.
- International Journal of Wildland Fire. 2002. An effective wind speed for models of fire spread. Available at: https://www.fs.usda.gov/rm/pubs_journals/2002/rmrs_2002_nelson_r001.pdf.
- International Journal of Wildland Fire. 2010. A numerical study of slope and fuel structure effects on coupled wildfire behaviour. Available at: https://www.fs.usda.gov/rm/pubs_other/rmrs_2010_linn_r001.pdf.
- Jones, T.L. and Kathryn A. Klar. 2007. California Prehistory. Lanham: AltaMira Press; Rowman & Littlefield Publishers, Inc.
- Keeling, Charles D. 1960. The Concentration and Isotopic Abundances of Carbon Dioxide in the Atmosphere. Available at: <https://onlinelibrary.wiley.com/doi/epdf/10.1111/j.2153-3490.1960.tb01300.x>. Accessed January 2024.
- Kern Council of Governments (Kern COG). 2016. Conformity Determination for the Kern Council of Governments (KCOG) 2017 Federal Transportation Improvement Program (FTIP) and 2014 Regional Transportation Plan (RTP) Amendment #1, December 16. Available at: <http://www.kerncog.org/wp-content/uploads/2018/12/2019FTIPAmend1.pdf>. Accessed November 2023.
- Kern Council of Governments (Kern COG). 2017. San Joaquin Valley I-5/SR-99 Goods Movement Corridor Study. Available at: https://www.kerncog.org/wp-content/uploads/2019/01/SJV_Goods_Movement_I5_SR99_2017.pdf. Accessed November 13, 2023.
- Kern Council of Governments (Kern COG). 2018. 2018 Regional Transportation Plan/Sustainable Communities Strategy. August 16, 2018. Available at: https://www.kerncog.org/wp-content/uploads/2018/10/2018_RTP.pdf. Accessed November 2023.
- Kern Council of Governments (Kern COG). 2019. Regional Growth Forecast for Kern Council of Governments, Methodology and Forecasts 2020 to 2050. Available at: https://www.kerncog.org/wp-content/uploads/2009/10/Kern_2020-2050_Regional_Growth_Forecast.pdf. Accessed May 2023.
- Kern Council of Governments (Kern COG). 2022. 2022 Regional Transportation Plan. Available at <https://www.kerncog.org/2022-rtp/>. Accessed November 2023.
- Kern Council of Governments (Kern COG). 2022. 2022 Regional Transportation Plan and Sustainable Communities Strategy. Available at: https://www.kerncog.org/wp-content/uploads/2022/12/2022_RTP.pdf. Accessed November 2023.
- Kern Council of Governments (Kern COG). 2022. 2022 Regional Transportation Plan and Sustainable Communities Strategy. Available at: https://www.kerncog.org/wp-content/uploads/2022/12/2022_RTP.pdf. Accessed November 2023.
- Kern Council of Governments (Kern COG). 2022. Regional Transportation Plan/Sustainable Communities Strategy. Available at: https://www.kerncog.org/wp-content/uploads/2022/12/2022_RTP.pdf. Accessed November 13, 2023.

- Kern Council of Governments (Kern COG). 2022a. 2022 Regional Transportation Plan/Sustainable Communities Strategy. Available at: https://www.kerncog.org/wp-content/uploads/2022/12/2022_RTP.pdf. Accessed October 25, 2023.
- Kern Council of Governments (Kern COG). 2022b. 6th Cycle Regional Housing Needs Allocation Plan. Available at: https://www.kerncog.org/wp-content/uploads/2013/06/FINAL-Kern-COG-RHNA-Plan_07-22-22.pdf. Accessed October 27, 2023.
- Kern County Fire Department (KCFD). 2020. Office of Emergency Services. County of Kern Multi-Jurisdictional Hazard Mitigation Plan. Available at: <https://mitigatehazards.com/county-of-kern/kern-hmp-docs/>. Accessed May 8, 2023.
- Kern County Fire Department (KCFD). 2022a. Kern County Fire Department 2021 Annual Report. Available at: <https://kerncountyfire.org/wp-content/uploads/2021-Annual-Report.pdf>. Accessed May 19, 2023.
- Kern County Fire Department (KCFD). 2022b. Kern County Fire Department 2021 Strategic Fire Plan. Available at: <https://osfm.fire.ca.gov/media/rl1j40en/2022-kern-county-unit-fire-plan.pdf>. Accessed May 19, 2023.
- Kern County Fire Department (KCFD). 2023. About the Kern County Fire Department. Available at: <https://kerncountyfire.org/about-kcfd/>. Accessed May 19, 2023.
- Kern County Library. 2023. Open Branches. Available at: <https://kerncountylibrary.org/find-hours-locations/>. Accessed May 21, 2023.
- Kern County Office of Emergency Services (OES). 2022. County of Kern Emergency Operations Plan. Available at: <https://www.kerncounty.com/home/showpublisheddocument/8407/637859766134270000>. Accessed May 8, 2023.
- Kern County Office of Emergency Services (OES). 2022. Kern County Emergency Operations Plan. Available at: <https://www.kerncounty.com/community/emergency/emergency-operations-plan>. Accessed November 29, 2023.
- Kern County Planning Department. 2004. Revised Update of the Kern County General Plan and Amendment of the Kern County Incorporated Cities Integrated Waste Management Plan Siting Element, Volume I, Recirculated Draft Program Environmental Impact Report. Available at: https://psbweb.co.kern.ca.us/planning/pdfs/kcgp/KCGP_RPEIR_voll.pdf. Accessed August 2023.
- Kern County Planning Department. 2009. Kern County General Plan. Available at: <https://www.kerncounty.com/planning/pdfs/kcgp/KCGP.pdf>. Accessed November 2023.
- Kern County Public Health. 2023. Emergency Medical Services. Available at: <https://kernpublichealth.com/ems-services-and-certification/>. Accessed May 21, 2023.
- Kern County Sheriff's Office (KCSO). 2023a. KCSO History: Our History. Available at: <https://www.kernsheriff.org/History>. Accessed May 21, 2023.
- Kern County Sheriff's Office (KCSO). 2023b. Contact Us. Available at: <https://www.kernsheriff.org/Contact>. Accessed May 21, 2023.

- Kern County Sheriff's Office (KSCO). 2023c. Lamont. Available at: <https://www.kernsheriff.org/Lamont>. Accessed May 21, 2023.
- Kern County Superintendent of Schools (KCSOS). 2021. Kern County Board of Education 2021 Redistricting. Available at: <https://kern.org/wp-content/blogs.dir/4/files/sites/4/2022/03/Current-KCBOE-Trustee-Areas.pdf>. Accessed May 21, 2023.
- Kern County. 2006. Guidelines for Preparing an Air Quality Assessment for Use in Environmental Impact Reports. December. Available at: <http://kernair.org/Documents/CEQA/AirQualityAssessmentPreparationGuidelines.pdf>. Accessed November 2023.
- Kern County. 2009. Kern County General Plan. Available at: <https://psbweb.co.kern.ca.us/planning/pdfs/kcgp/KCGP.pdf>. Accessed November 2023.
- Kern County. 2009. Kern County General Plan. Chapter 3: Noise Element. September 22.
- Kern County. 2009. Planning and Natural Resources Department, Various Dates. Kern County General Plan, last amended September 22, 2009. Available at: <https://kernplanning.com/planning/planning-documents/general-plans-elements/>. Accessed October 2023.
- Kern County. 2022. Kern County General Plan and Housing Element Annual Progress Report 2022. Available at: PDF.
- Kern County. 2023. Kern County Zoning Ordinance, Chapter 19.81, last amended February 2023. Available at: https://library.municode.com/ca/kern_county/codes/code_of_ordinances?nodeId=TIT19ZO_CH19.81_OULIDASKOR_19.81.040GERE. Accessed October 2023.
- Kern County. 2023. Meadows Field Info, Airport Facts web page. Available: <https://meadowsfield.com/airport-information/>. Accessed November 16, 2023.
- Kern Economic Development Corporation (KEDC). 2023. Kern County Market Overview. Available at: <https://kernedc.com/wp-content/uploads/2024/01/AC8918-KEDC-2023-Market-Overview-and-Member-Directory-DIGITAL-6.pdf>. Accessed February 6, 2024.
- Kern Groundwater Authority (KGA). 2022. Groundwater Sustainability Plan. Available at: <https://kerngwa.com/wp-content/uploads/2022/07/kga-amended-gsp-submitted-july-2022.pdf>. Accessed June 2023.
- Kern Groundwater Authority. 2022. Groundwater Sustainability Plan. Available at: <https://kerngwa.com/wp-content/uploads/2022/07/kga-amended-gsp-submitted-july-2022.pdf>. Accessed June 2023.
- Kern High School District (KHSD). 2023a. KHSD Boundary Information. Available at: <https://khsd.maps.arcgis.com/apps/instant/lookup/index.html?appid=934da1278cdb45aa867715b2bb8daaf5&find=93313%252C%2520Bakersfield%252C%2520California>. Accessed May 22, 2023.
- Kern High School District (KHSD). 2023b. School Directory. Available at: <https://www.kernhigh.org/apps/pages/schooldirectory>. Accessed May 22, 2023.

- Kern River Groundwater Sustainability Agency. 2019. Kern River Groundwater Sustainability Plan. Available at: <https://cawaterlibrary.net/document/kern-river-groundwater-sustainability-agency-groundwater-sustainability-plan/>. Accessed June 2023.
- Kimley-Horn Associates (KHA). 2023a. Storm Water Quality Assessment Memorandum. May 2023.
- Kimley-Horn Associates (KHA). 2023b. Wastewater Treatment Plant Preliminary Design Report.
- Kimley Horn Associates (KHA). 2024a. Stormwater Drainage Study.
- Kimley-Horn Associates (KHA). 204b. Traffic Study, Westside Industrial Project. October.
- King, Chester and Thomas C. Blackburn. 1978 Tataviam. In Handbook of North American Indians, Volume 8, California. pp. 535-537. Edited by Robert F. Heizer, W.C. Sturtevant, general editor. Smithsonian Institution, Washington, D.C.
- King, Chester D. 1981 The Evolution of Chumash Society: A Comparative Study of Artifacts Used in Social System Maintenance in the Santa Barbara Channel Region Before A.D. 1804. Unpublished PhD dissertation, Department of Anthropology, University of California, Davis.
- Kroeber, A.L. 1925. Handbook of the Indians of California. Bulletin 78. Bureau of American Ethnology. Washington, DC. Smithsonian Institution.
- Kyle, D.E., Rensch, H.E., Rensch, E.G., Hoover, M.B. and Abeloe, W., 2002. Historic spots in California. Stanford University Press.
- Meyer, J., D. Craig Young, and Jeffrey S. Rosenthal. 2010. Volume I: A Geoarchaeological Overview and Assessment of Caltrans District 6 and 9, Cultural Resources Inventory of Caltrans District 6/9 Rural Conventional Highways. Submitted to Central California Department of Transportation, District 6.
- Moratto, M.J. 1984. California Archaeology. San Diego. Academic Press.
- National Highway Traffic Safety Administration (NHTSA). 2023. Corporate Average Fuel Economy. Available at: <https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy>. Accessed November 2023.
- National Oceanic and Atmospheric Administration (NOAA). 2021. Bakersfield Climate Monthly Summaries. Available at: <https://www.weather.gov/hnx/bflmain>. Accessed June 6, 2023.
- National Park Service (NPS). 2015. Available at: <https://www.nps.gov/index.htm>. Accessed November 2023.
- National Park Service (NPS). 2021. Sequoia and Kings Canyon National Parks Hosted 1.2 Million Visitors in 2020 35% Decrease Compared to 2019. Available at: <https://www.nps.gov/seki/learn/news/sequoia-and-kings-canyon-national-parks-hosted-1-2-million-visitors-in-2020-35-decrease-compared-to-2019.htm>. Accessed November 7, 2023.
- National Park Service (NPS). 2023. Cesar E. Chavez National Monument. Available at: <https://www.nps.gov/cech/planyourvisit/basicinfo.htm>. Accessed November 1, 2023.

- Natural Resource Conservation Science (NRCS). 2021. Online Web Soil Survey. Available at: https://www.nrcs.usda.gov/wps/portal/nrcs/detailfull/soils/survey/?cid=nrcs142p2_053369. Accessed June 6, 2023.
- Natural Resource Conservation Service (NRCS). 2023. Farmland Protection Policy Act. Available at: <https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/landuse/fppa/>. Accessed July 14, 2023.
- Ninyo & Moore. 2023. Updated Geotechnical Evaluation; Warehouse Facility Project Houghton Road and Wible Road.
- Noble, L. F. 1926. Borate Deposits in the Kärner District, Kern County, California. Available at: <https://pubs.usgs.gov/bul/0785c/report.pdf>. Accessed August 2023.
- Office of Environmental Health Hazards Assessment (OEHHA) and American Lung Association, (OEHHA-ALA). 2001. Health Effects of Diesel Exhaust. May 21. Available at: <https://oehha.ca.gov/air/health-effects-diesel-exhaust>. Accessed November 2023.
- Office of Environmental Health Hazards Assessment (OEHHA). 2015. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*, February. Available at: <https://oehha.ca.gov/media/downloads/crn/2015guidancemanual.pdf>. Accessed November 28, 2023.
- Office of Planning and Research (OPR). 2010. Senate Bill No. 97 CHAPTER 185. Available at: https://opr.ca.gov/ceqa/docs/20210721-SB_97_bill_20070824_chaptered.pdf. Accessed December 2023.
- Pacific Gas and Electric Company (PG&E). 2023. Economic Development Site Tool. Available at: https://www.pge.com/en_US/large-business/services/economic-development/opportunities/sitetool.page. Accessed November 2023.
- Peters, A., Dockery, D.W., Muller, J.E., Mittleman, M.A. 2001. Increase Particulate Air Pollution and the Triggering of Myocardial Infarction, *Circulation*, 103: 2810–2815, 2001.
- Rio Tinto. 2016. Made in Kern County: Borax Mine. Available at: <https://www.borax.com/news-events/april-2016/made-in-kern-county-borax-mine#:~:text=Each%20year%2C%20crews%20mine%20up%20to%2022%20million,more%20than%2030%25%20of%20all%20the%20world's%20borax>. Accessed August 2023.
- Rio Tinto. 2019. Boron Operations Fact Sheet. Available at: <https://www.borax.com/BoraxCorp/media/Borax-Main/Resources/Brochures/boron-operations-two-pg.pdf>. Accessed June 2023.
- Rosenthal, Jeffrey S., Gregory G. White, and Mark Q. Sutton. 2007. The Central Valley: A View from the Catbird's Seat. In *California Prehistory: Colonization, Culture, and Complexity*, edited by Terry L. Jones and Kathryn A. Klar, pp. 147–163. Lanham, Maryland: AltaMira Press.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 1992. Rule 4102 Nuisance, December 17, 1992. Available at: <https://www.arb.ca.gov/drdb/sju/cur.htm>.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2004. Regulation VIII Fugitive PM₁₀ Prohibitions. August 19, 2004. Available at: <http://www.valleyair.org/rules/1ruleslist.htm>.

- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2005a. Rule 4101 Visible Emissions. February 17, 2005. Available at: <http://www.valleyair.org/rules/1ruleslist.htm>.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2005b. Rule 9510 Indirect Source Review. Accessed April 21, 2015. <https://www.valleyair.org/rules/currnrules/r9510.pdf>
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2009. Rule 9410 Employer Based Trip Reduction. December 17. Available at: <https://www.valleyair.org/rules/currnrules/r9410.pdf>.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2015. Guidance for Assessing and Mitigating Air Quality Impacts. March 2015.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2016. 2016 Ozone Plan for 2008 8-hour Ozone Standard. June. Available at: http://valleyair.org/Air_Quality_Plans/Ozone-Plan-2016.htm.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2018a. Rule 9510; Indirect Source Review. December. Available at: <https://www.valleyair.org/rules/currnrules/r9510-a.pdf>.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2018b. APR-2030 Project Ambient Air Quality Analysis Applicability Determination under CEQA, June 2018 Guidance.
- San Joaquin Valley Air Pollution Control District (SJVAPCD). 2020. Ambient Air Quality Standards & Valley Attainment Status. Available at: <http://www.valleyair.org/aqinfo/attainment.htm>.
- Silverstein, M., 1978. Yokuts: Introduction. Handbook of North American Indians. California, Vol. 8.
- Smith, A.R. 1964, Geologic map of California: Bakersfield sheet. California Division of Mines and Geology. Scale 1:250,000.
- South Coast Air Quality Management District (SCAQMD). 2014. 13 California Code of Regulations Article 4.8, Chapter 9, Rule 2449. Control of Oxides of Nitrogen Emissions from Off-Road Diesel Vehicles. Available at: <https://www.aqmd.gov/docs/default-source/rule-book/reg-xxiv/rule-2449.pdf>. Accessed November 2023.
- South Coast Air Quality Management District (SCAQMD). 2015. Application of the SCAQMD for leave to file brief of amicus curiae in support of neither party and [proposed] brief amicus curiae, California Supreme Court, Sierra Club, Revive the San Joaquin, and League of Women Voters of Fresno v. County of Fresno and Friant Ranch, L.P., Appeal from the Superior Court of California, County of Fresno, Case No. 11CECG00726, Filed April 13, 2015.
- Southern California Earthquake Data Center (SCEDC). 2023. Significant Earthquakes and Faults. Available at: <https://scedc.caltech.edu/earthquake/significant.html>. Accessed August 2023.
- Southern California Edison (SCE). 2020. Southern California Edison power Site Search Tool. Available at: <https://www.arcgis.com/apps/webappviewer/index.html?id=05a84ec9d19f43ac93b451939c330888>. Accessed November 2023.
- Southern California Gas Company (SoCalGas). 2007. Maps Showing Gas Service Areas of Southern California Gas Company and Pacific Gas and Electric Company in Kern County. Available at: https://www.socalgas.com/regulatory/tariffs/tm2/pdf/Kern_County_Map.pdf. Accessed November 2023.

- Superior Court of California. 2023. Locations & Contact Info. Available at: <https://www.kern.courts.ca.gov/general-information/locations-contact-info>. Accessed May 21, 2023.
- SWCA Environmental Consultants. 2022. Kern County Community Wildfire Protection Plan. Available at: https://www.swca.com/sites/default/files/kern_cwpp.pdf. Accessed May 8, 2023.
- The Wildlands Conservancy. 2023. Wind Wolves Preserve. Available at: <https://wildlandsconservancy.org/preserves/windwolves>. Accessed November 1, 2023.
- UC Davis California Soil Resource Lab, 2023. SoilWeb. Available at: <https://casoilresource.lawr.ucdavis.edu/gmap/>. Accessed August 2023.
- United States Army Corps of Engineers (USACE). 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).
- United States Bureau of Labor Statistics (BLS). 2023. The Employment Situation–September 2023. Available at: <https://www.bls.gov/news.release/pdf/empsit.pdf>. Accessed October 26, 2023.
- United States Bureau of Land Management (BLM). 1984. USDI Manual 8400. Visual Resource Management. Washington, D.C.
- United States Congress. 2000. Disaster Mitigation Act of 2000. Available at: https://www.fema.gov/sites/default/files/2020-11/fema_disaster-mitigation-act-of-2000_10-30-2000.pdf. Accessed November 9, 2023.
- United States Energy Information Administration (EIA). 2018a. California State Energy Profile. Last updated April 20, 2023. Available at: <https://www.eia.gov/state/print.php?sid=CA>. Accessed November 2023.
- United States Energy Information Administration (EIA). 2023a. State Electricity Profiles – California Electricity Profile 2022. November 2, 2023. Available at: <https://www.eia.gov/electricity/state/california/index.php>. Accessed November 2023.
- United States Energy Information Administration (EIA). 2023b. Natural Gas Consumption by End Use. Last updated October 31, 2023. Available at: https://www.eia.gov/dnav/ng/ng_cons_sum_a_EPG0_VC0_mmcfa.htm. Accessed November 2023.
- United States Energy Information Administration (EIA). 2023c. Use of Energy Explained Available at: <https://www.eia.gov/energyexplained/use-of-energy/>. Accessed November 2023.
- United States Environmental Protection Agency (EPA) and National Highway Traffic Safety Administration (NHTSA). 2016. Federal Register/Vol. 81, No. 206/Tuesday, October 25, 2016/Rules and Regulations. Final Rule for Greenhouse Gas Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles – Phase 2. Available at: <https://www.gpo.gov/fdsys/pkg/FR-2016-10-25/pdf/2016-21203.pdf>. Accessed November 2023.
- United States Environmental Protection Agency (EPA). 1971. Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances. December.
- United States Environmental Protection Agency (EPA). 1974. Information on Levels of Environmental Noise Requisite to Protect Health and Welfare with an Adequate Margin of Safety (NTIS 550/9-74-004). March.

- United States Environmental Protection Agency (EPA). 2000. Technology transfer network, Air Toxics Website. Available at: <https://www.epa.gov/haps/health-effects-notebook-hazardous-air-pollutants>. Accessed November 2023.
- United States Environmental Protection Agency (EPA). 2006. AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors. Chapter 13.2.2, Unpaved Roads, November 2006.
- United States Environmental Protection Agency (EPA). 2011. AP-42, Fifth Edition, Compilation of Air Pollutant Emission Factors. Chapter 13.2.1, Paved Roads, January 2011.
- United States Environmental Protection Agency (EPA). 2012. Integrated Science Assessment for Lead (Third External Review Draft). November 2012. Available at: <http://cfpub.epa.gov/ncea/isa/recordisplay.cfm?deid=242655#Download>. Accessed November 2023.
- United States Environmental Protection Agency (EPA). 2021. Watershed Assessment, Tracking and Environmental Results System (WATERS). Available at: <https://www.epa.gov/waterdata/waters-watershed-assessment-tracking-environmental-results-system>. Accessed June 6, 2023.
- United States Environmental Protection Agency (EPA). 2023. Overview of Greenhouse Gases. Last Update October 2023. Available at: <https://www.epa.gov/ghgemissions/overview-greenhouse-gases>. Accessed November 2023.
- United States Fish and Wildlife Service (USFWS). 2021. Information for Planning and Consultation. Available at: <http://ecos.fws.gov/ipac/>. Accessed June 6, 2023.
- United States Forest Service (USFS). 1982. Comprehensive Management Plan for the Pacific Crest National Scenic Trail. Available at: <https://www.pcta.org/wp-content/uploads/2012/07/PCNSTComprehensivePlan.pdf>. Accessed November 1, 2023.
- United States Geological Survey (USGS). 2023. Mineral Resource Data System. Available at: <https://mrdata.usgs.gov/mrds/map-graded.html#home>. Accessed June 22, 2023.
- United States Geological Survey (USGS). 2023. National Geospatial Program. Available at: https://www.usgs.gov/core-science-systems/national-geospatial-program/us-topo-maps-america?qt-science_support_page_related_con=4#qt-science_support_page_related_con. Accessed June 6, 2023.
- United States Geological Survey (USGS). 2023. U.S. Quaternary Faults. Available at: <https://usgs.maps.arcgis.com/apps/webappviewer/index.html?id=5a6038b3a1684561a9b0aadf88412fcf>. Accessed August 2023.
- United States Postal Service (USPS). 2023. Postal history – Postmaster Finder. Available at: <https://about.usps.com/who/profile/history/postmaster-finder/post-offices-by-county.htm>. Accessed May 21, 2023.
- University of California San Diego (UCSD). 2013. Scripps Institution of Oceanography. History of the Keeling Curve. Available at: <https://keelingcurve.ucsd.edu/2013/04/03/the-history-of-the-keeling-curve/>. Accessed December 2023.
- Valley Fever Center for Excellence. 2019a. Order the Right Tests. Available at: <https://vfce.arizona.edu/valley-fever-people/order-right-tests>. Accessed November 2023.

- Valley Fever Center for Excellence. 2019b. Check for Complications. Available at: <https://vfce.arizona.edu/valley-fever-people/check-complications>. Accessed November 2023.
- Valley Fever Center for Excellence. 2023. Check for Complications. Available at: <https://vfce.arizona.edu/valley-fever-people/check-complications>. Accessed November 2023.
- Wallace, William J. 1978. Northern Valley Yokuts. In Handbook of North American Indians. Vol. 8, California, edited by Robert F. Heizer, 462-470. Washington, D.C: Smithsonian Institution.
- Weather Underground. 2017. Bakersfield, CA; Weather History for Meadows Field – January 2016 to December 2016. Available at: https://www.wunderground.com/history/monthly/KBFL/date/2019-6?req_city=Bakersfield&req_statename=California. Accessed November 2023.
- West Kern Water District (WKWD). 2021. Urban Water Management Plan, 2020 Update. Revised January 2023. Available at: <https://wkwd.org/wp-content/uploads/2023/11/Revised-Final-WKWD-UWMP-2020-Update.pdf>. Accessed February 2024.
- Western Regional Air Partnership (WRAP). 2006. WRAP Fugitive Dust Handbook. Available at: https://www.wrapair.org/forums/dejf/fdh/content/FDHandbook_Rev_06.pdf.
- Western Regional Climate Center (WRCC). 2016. Bakersfield AP, California (040442) Period of Record Monthly Climate Summary. Available at: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca0442>. Accessed June 2023.
- Western Regional Climate Center (WRCC). 2019. Kern River PH1, California (04520). Available at: <https://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca4520>. Accessed November 2023.
- Zhu S., Horne J.R., Mac Kinnon M., Samuelson G.S., Dabdub D. Comprehensively assessing the drivers of future air quality in California. *Environ Int.* 2019 Apr;125:386-398. doi: 10.1016/j.envint.2019.02.007. Epub 2019 Feb 8. PMID: 30743145.