

Chapter 1  
**Executive Summary**

# Chapter 1

## Executive Summary

### 1.1 Introduction

The Kern County Planning and Natural Resources Department prepared and circulated a draft and final environmental impact report (DEIR and FEIR, respectively; collectively, the “2016 EIR”) for the Grapevine Specific and Community Plan in 2016. The Kern County Board of Supervisors unanimously approved the Grapevine Project (project) and certified the FEIR on December 6, 2016. A lawsuit alleging that several substantive sections of the FEIR (2016) failed to comply with California Environmental Quality Act (CEQA) requirements was filed on January 4, 2017 (Center For Biological Diversity et al. v. County Of Kern et al., Kern County Superior Court Case No. BCV-17-100030-KCT). On February 15, 2019, the Court issued a Writ of Mandate and a Judgment upholding the FEIR (2016) against all of the claims brought in the lawsuit except for the analysis of potential “significant adverse effects to traffic, air pollution, greenhouse gases, noise, public health and growth inducing impacts” that could occur if the project’s vehicle trip internal capture rate (ICR) was lower than analyzed in the FEIR (2016). If fewer vehicular trips than anticipated occurred within the project site and the adjacent Tejon Ranch Commerce Center (TRCC) center (“internal trips”), and more trips began or ended in a different location, then this could result in potentially adverse traffic, air quality, greenhouse gas, noise, hazard, and growth inducement impacts that could result from such longer trips and higher vehicle miles travelled (VMT); the judge directed that these impacts be further analyzed. The FEIR (2016) considered these types of vehicle-related impacts based on various land use and other factors and projected, for example that a defined percentage of vehicular trips between home and work would begin or end outside the project site and the adjacent TRCC, while the remaining percentage of all trips (e.g., school-home, retail service-home, etc.) would occur entirely within the project site and the adjacent TRCC. This remaining percentage of trips that occur entirely within the project site and adjacent TRCC are “internal” trips, and the percentage of these internal trips in relation to trips with an external beginning or end point is called the “Internal Capture Rate” (ICR).

The Judgment states that the County “is not required to start the EIR [Environmental Impact Report] process anew” and “need only correct the deficiencies in the EIR that the Court has identified before considering recertification of the EIR. Whether the correction requires recirculation of the EIR, in whole or in part, is for the County to decide in compliance with CEQA.” The Judgment directed the County to set aside the project approvals and decertify the FEIR (2016). The County Board of Supervisors rescinded the approvals and decertified the FEIR (2016) on March 12, 2019.

On March 14, 2019, the County received an application for the readoption of the Grapevine Specific and Community Plan and other County discretionary approvals, including related General Plan and Zoning Code amendments. The proposed project, with minor adjustments to the Special Plan, and the requested County discretionary approvals described in the application, are the same as those considered in the FEIR (2016). The purpose of this Supplemental Recirculated EIR (SREIR) is to correct the specific deficiencies identified by the Court by evaluating potential traffic, air pollution, greenhouse gases, noise, public health, and growth-inducing impacts that could occur from lower ICRs than evaluated in the FEIR (2016). The Kern County Planning Commission and Board of Supervisors will consider the information in the SREIR, including the public comments and staff

response to those comments, in conjunction with the FEIR (2016), during the public hearing process. As a legislative action, the final decision is made by the Board of Supervisors, who may approve, conditionally approve, or deny the project.

The Grapevine Project is a proposal by Tejon Ranchcorp (project proponent) to develop an 8,010-acre master planned community located at the southern end of the San Joaquin Valley, adjacent to the existing TRCC in unincorporated Kern County, California (Figure 1-1, *Regional Location*, and Figure 1-2, *Vicinity Map*). The project requires the adoption of the Grapevine Specific and Community Plan and the Grapevine Special Plan; amendments to the Land Use, Open Space and Conservation Element of the Kern County General Plan (KCGP), rescission of Map Code 4.3 (Specific Plan Required) in Appendix C of the KCGP, General Plan Amendment to the Circulation Element of the KCGP, zone code change (ZCC) requests, and exclusion from Agricultural Preserve No. 19.

This Supplemental Recirculated Draft Environmental Impact Report (SREIR) has been prepared by Kern County as the Lead Agency under the California Environmental Quality Act (CEQA). It provides information about the environmental setting and impacts of the project and alternatives. It also informs the public about the project and its anticipated impacts and provides information to meet the needs of local, State, and federal permitting agencies that are required to consider the project. The SREIR will be used by Kern County to determine whether to adopt the Specific and Community Plan and Special Plan, and approve the SPA, General Plan Amendments, ZCCs, and Agricultural Preserve Exclusion for the project.

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

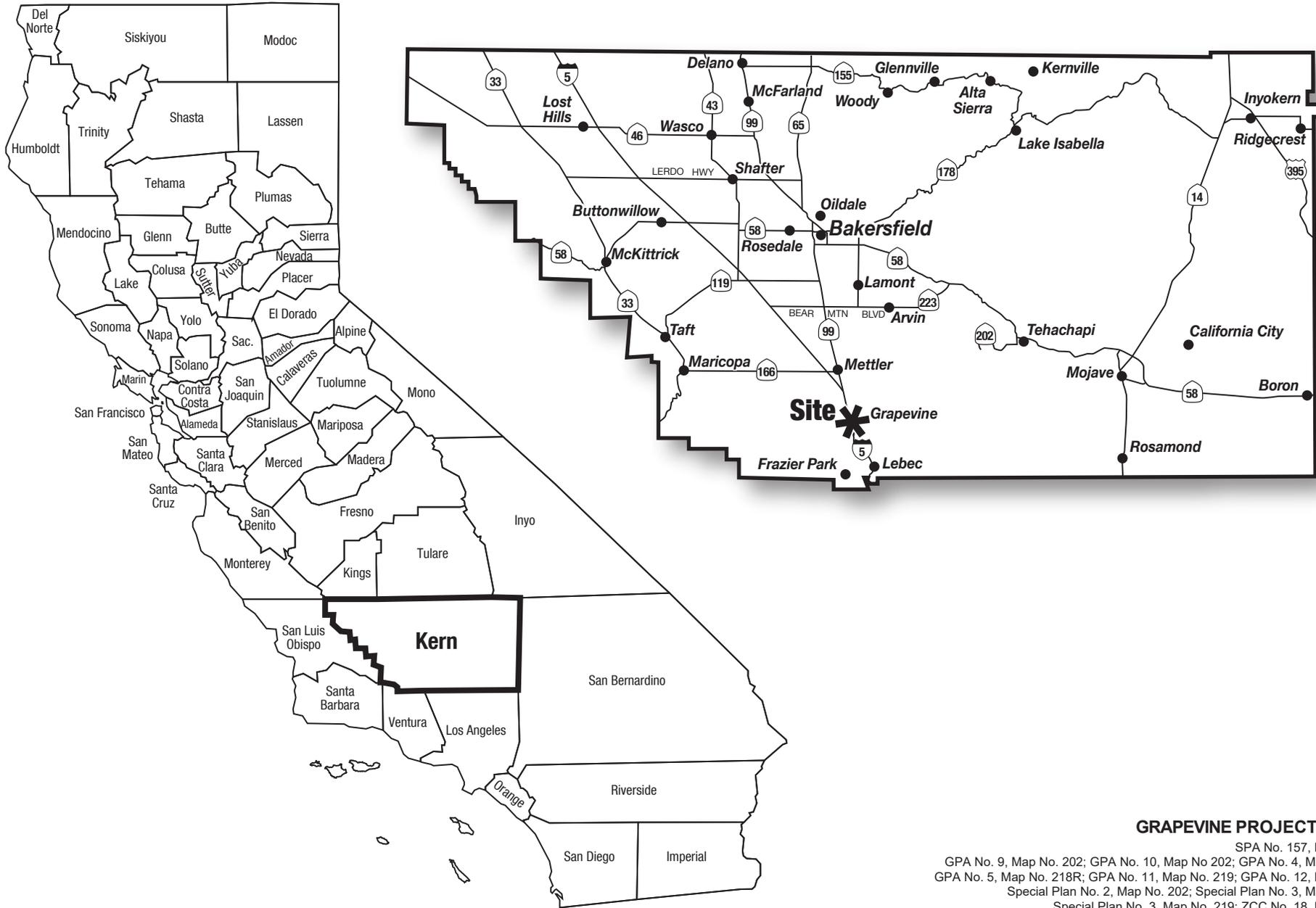
## 1.2 Project Summary

This chapter summarizes the proposed Grapevine Project, including the provisions of the Grapevine Specific and Community Plan and the Grapevine Special Plan No. 2, Map 202; No. 3, Map 218R, and No. 3, Map 219 (Volume 2, Appendices B and C, respectively, of this SREIR). To facilitate construction of the project, the project proponent is requesting to (a) adopt the Grapevine Specific and Community Plan; (b) amend the Land Use, Open Space, and Conservation Element of the KCGP to provide for a change in the existing map code to an accepted plan area and to establish new land use designations; (c) amend the Circulation Element of the KCGP to eliminate all identified collector segments running through the project site and establish the Grapevine Circulation Plan; (d) adopt the Grapevine Special Plan; (e) change zone classification from the existing zone districts to incorporate the Special Planning (SP) District; and (f) exclude a portion of the project site from the existing agricultural preserve. The Draft EIR, once certified, will be used to satisfy the CEQA requirements for the following discretionary approvals:

1. Adoption of the Grapevine Specific and Community Plan – Specific Plan Amendment No. 157, Map 500;
2. Amendments to the KCGP Land Use, Open Space and Conservation Element from Map Code(s) 2.1, 2.2, 2.4, 2.5, 4.3, 6.2, 8.1, 8.3, and 8.4, to Map Code 4.1 (Accepted County Plan Areas); upon approval of the Grapevine Specific and Community Plan, the following Map Code(s) would be established: VMU (Village Mixed Use), MU (Mixed Use), I (Industrial), EA

- (Exclusive Agriculture), OA (Open Area), GH (Geologic Hazard Combining), and FC (Floodplain Combining), and MFR (Multi-Family Residential Combining District);
3. Rescind the following Map Code 4.3 (Specific Plan Required) areas as identified in Appendix C of the KCGP;
  4. Amend the KCGP Circulation Element to delete all identified collector segments running through the project site and establish the Grapevine Circulation Plan;
  5. Adoption of the Grapevine Special Plan No. 2, Map 202; No. 3, Map 218R, and No. 3, Map 219;
  6. Change zone classifications from A (Exclusive Agriculture), C-2 PD (General Commercial, Precise Development Combining), and C-2 PD FPP (General Commercial, Precise Development Combining Floodplain Primary) to SP District;
  7. Exclusion of 7,852 acres from the boundaries of Agricultural Preserve No. 19
  8. Approval of the Development Agreement;
  9. Kern County Air Pollution Control District Authority to Construct/Permit to Operate;
  10. Kern County Public Works Department - construction, grading, and building permits;
  11. Kern County Environmental Health Services Division – Water well permits, if applicable;
  12. Kern County Fire Department – Fire Safety Plan;
  13. Rights-of-way crossing permits (Kern County and Department of Water Resources);
  14. Kern County Permit for Occupancy;
  15. Kern County LAFCO – annexation of the project site into the Tejon-Castac Water District (TCWD) jurisdiction;
  16. Approval of the Finance Tract Map(s) and Tentative Tract Maps;
  17. Approval of the formation of a Geological Hazard Abatement District in accordance with California Public Resources Code Sections 26500- 26601;
  18. Approval of the formation of a Community Facilities District in accordance with the Mello-Roos Community Facilities Act of 1982 (California Government Code Sections 53311-53368.3);
  19. Approval of vesting tentative tract maps and parcel maps (initial phase and later phases), including: (a) approvals for development or design variations that may be requested in conjunction with a final lot design; and (b) approvals required to form a Homeowners Association or other entity under the Davis Sterling Act (California Civil Code Sections 1350-1376);
  20. Approval of grading, street, building, landscape, and other construction permits in accordance with the Kern County Ordinance Code and the Grapevine Special Plan No. 2, Map 202; No. 3, Map 218R and No. 3, Map 219;
  21. Agreements/Permits/Authorizations pursuant to the California and federal Endangered Species Acts if necessary;

22. Approval by California Department of Transportation (Caltrans) for encroachment permit(s) for road access to the project site under Caltrans jurisdiction, and for approvals of various Interstate 5 (I-5) freeway improvements;
23. Approvals from California Department of Water Resources, including approvals related to water conveyance and access to and bridge crossings of the California Aqueduct for arterials connecting project Plan Areas and adjacent public roads;
24. Approvals from the California Public Utilities Commission for any project elements to be constructed by regulated public utilities;
25. San Joaquin Valley Air Pollution Control District (SJVAPCD) - Fugitive Dust Control Plan, Authority to Construct, Permit to Operate, any other permits as necessary;
26. California Department of Public Health - Water System Permit;
27. Approvals from Central Valley Regional Water Quality Control Board (Central Valley RWQCB) – Waste Discharge Permits, Regional Water Quality Certification (401 Permit), National Pollutant Discharge Elimination System Construction General Permit, General Construction Stormwater Permit;
28. Approval of the proposed Project Mitigation Measure Monitoring Program;
29. Approval of the CEQA Findings pursuant to CEQA Guidelines Section 15091 and 15093; and
30. Approval of a Statement of Overriding Consideration.

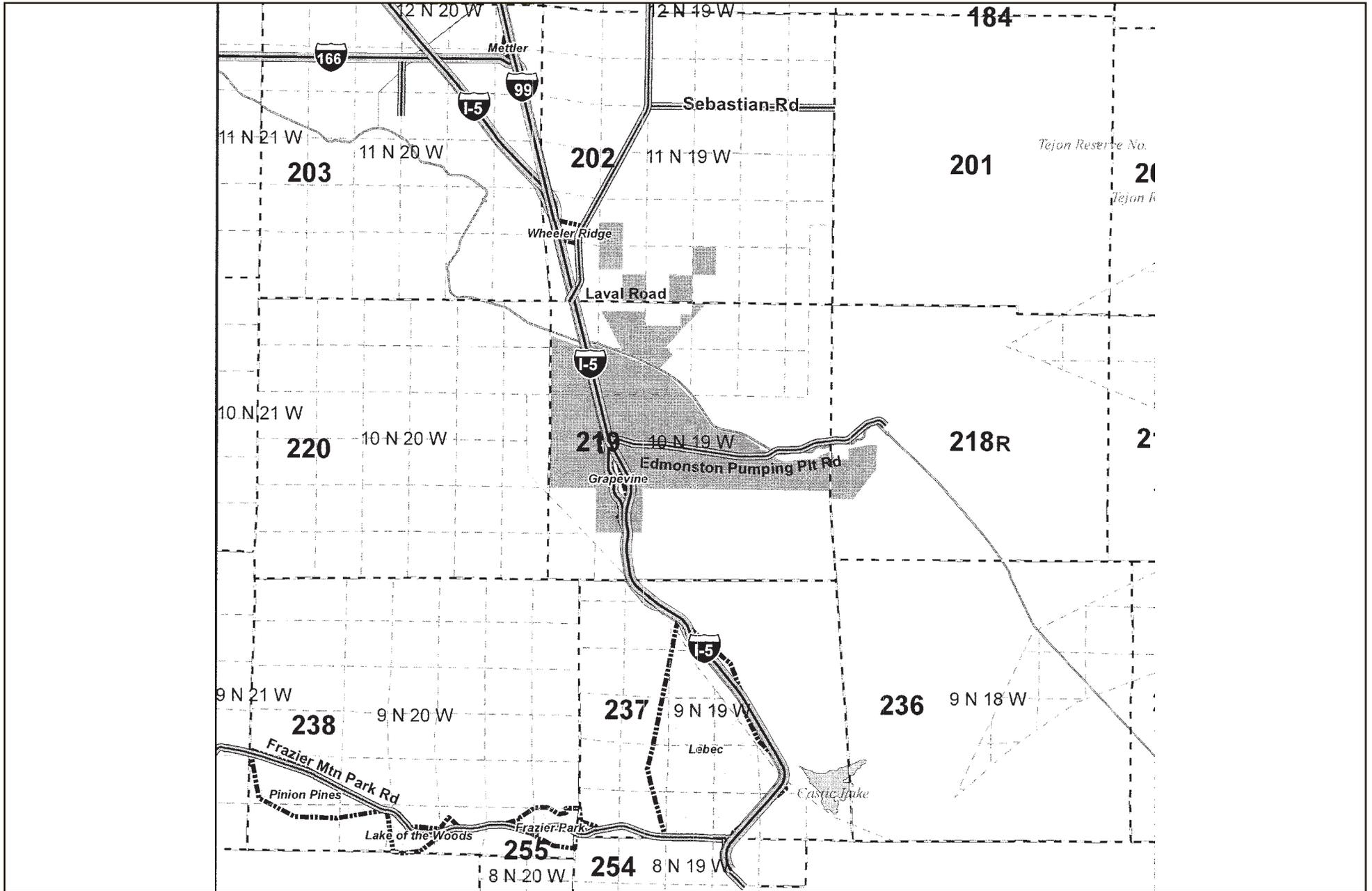


**GRAPEVINE PROJECT • SREIR**

SPA No. 157, Map No. 500;  
 GPA No. 9, Map No. 202; GPA No. 10, Map No. 202; GPA No. 4, Map No. 218R;  
 GPA No. 5, Map No. 218R; GPA No. 11, Map No. 219; GPA No. 12, Map No. 219;  
 Special Plan No. 2, Map No. 202; Special Plan No. 3, Map No. 218R;  
 Special Plan No. 3, Map No. 219; ZCC No. 18, Map No. 202;  
 ZCC No. 3, Map No. 218R; ZCC No. 14, Map No. 219;  
 Ag. Preserve No. 19 – Exclusion, Map No. 202

**Regional Location**

**Figure 1-1**



**LEGEND**

-  Township/Range
-  Sections
-  Zone Map
-  Unincorporated Towns
-  Grapevine Specific Plan Area

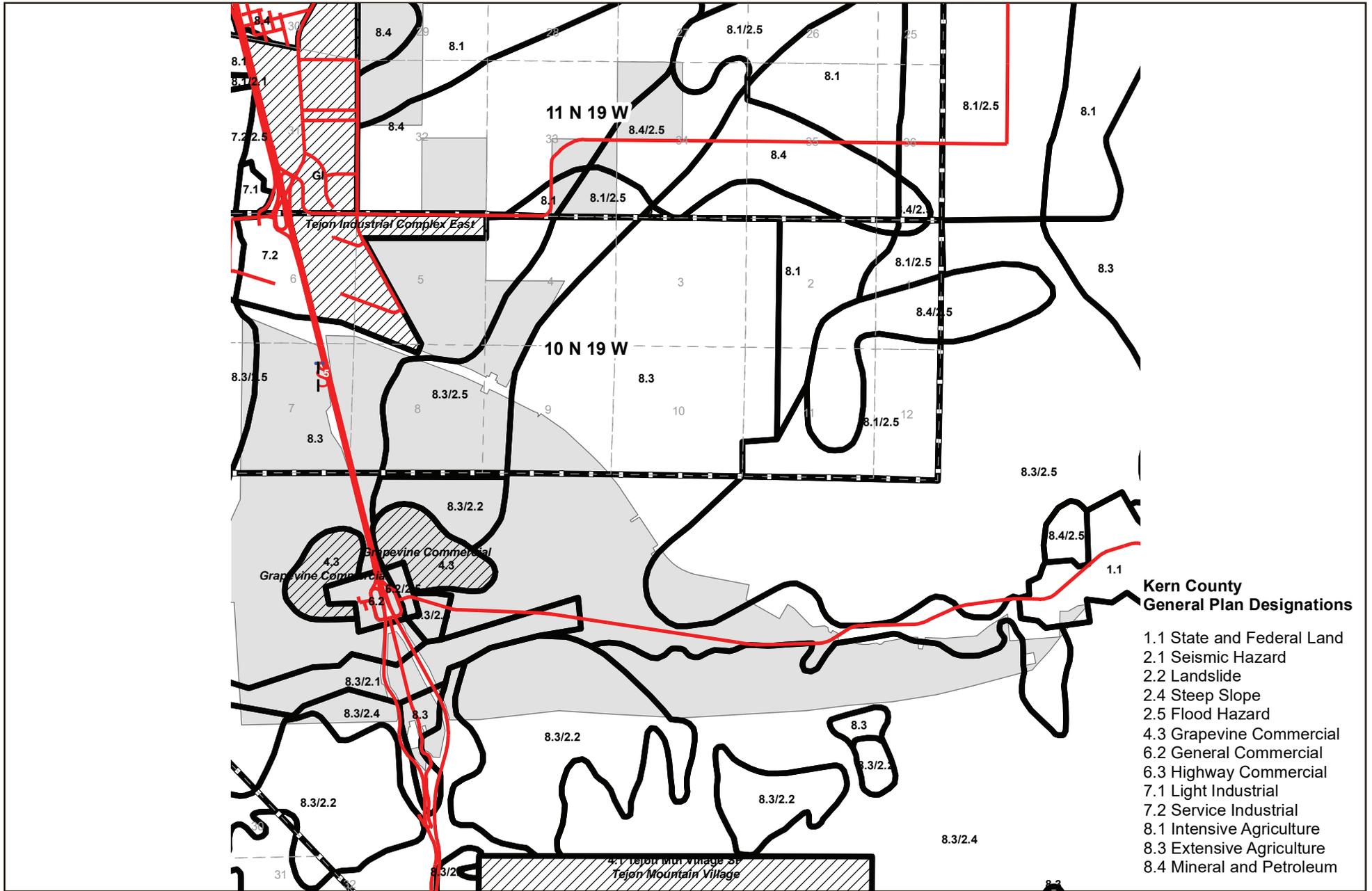
**GRAPEVINE PROJECT • SREIR**

SPA No. 157, Map No. 500; GPA No. 9, Map No. 202; GPA No. 10, Map No. 202; GPA No. 4, Map No. 218R; GPA No. 5, Map No. 218R; GPA No. 11, Map No. 219; GPA No. 12, Map No. 219; Special Plan No. 2, Map No. 202; Special Plan No. 3, Map No. 218R; Special Plan No. 3, Map No. 219; ZCC No. 18, Map No. 202; ZCC No. 3, Map No. 218R; ZCC No. 14, Map No. 219; Ag. Preserve No. 19 – Exclusion, Map No. 202

**Vicinity Map**

Figure 1-2





**Kern County  
General Plan Designations**

- 1.1 State and Federal Land
- 2.1 Seismic Hazard
- 2.2 Landslide
- 2.4 Steep Slope
- 2.5 Flood Hazard
- 4.3 Grapevine Commercial
- 6.2 General Commercial
- 6.3 Highway Commercial
- 7.1 Light Industrial
- 7.2 Service Industrial
- 8.1 Intensive Agriculture
- 8.3 Extensive Agriculture
- 8.4 Mineral and Petroleum

**Legend**

- General Plan Boundaries
- Specific Plans
- Township/Range
- Grapevine Planning Area
- Roadways



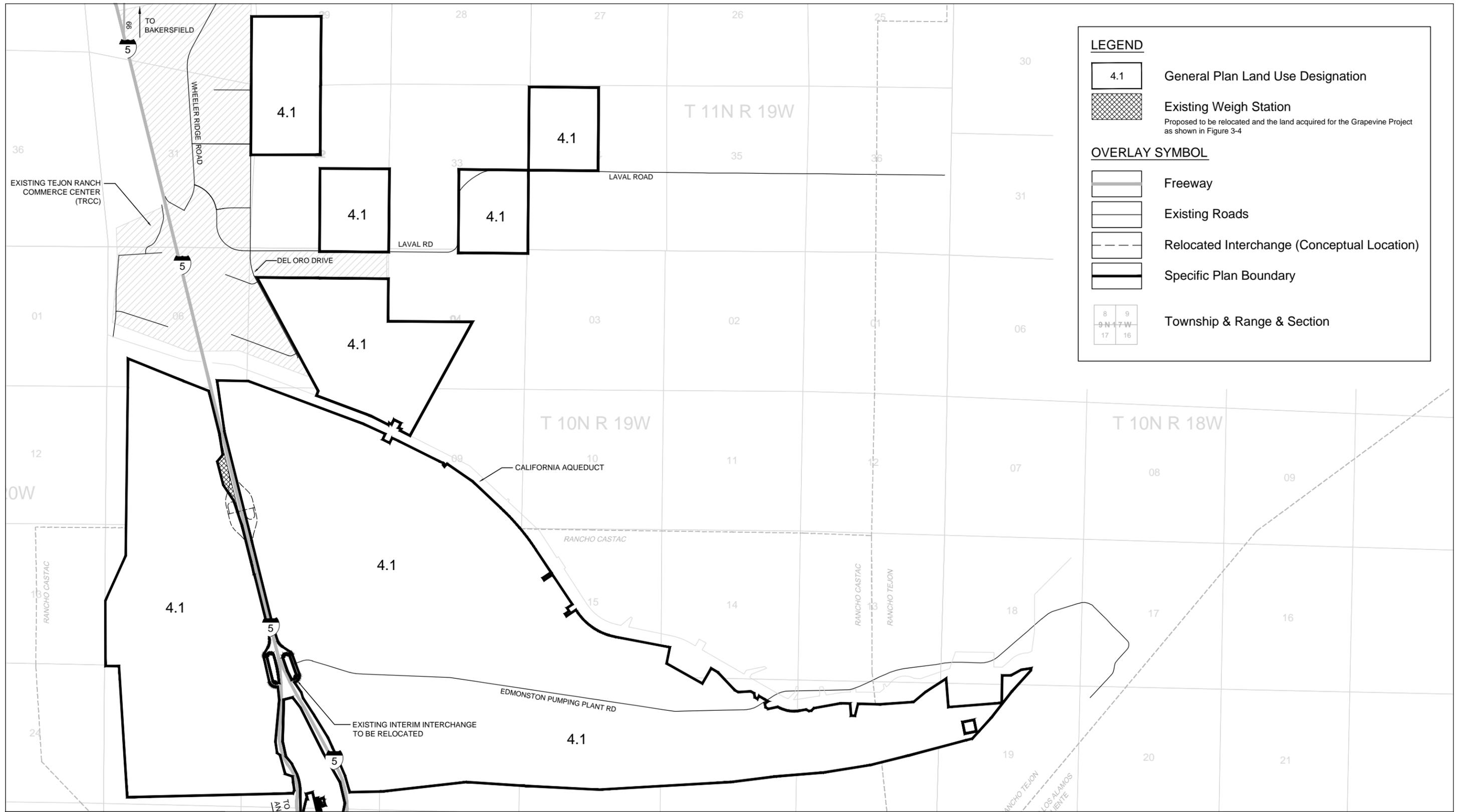
SPA No. 157, Map No. 500; GPA No. 9, Map No. 202; GPA No. 10, Map No. 202; GPA No. 4, Map No. 218R; GPA No. 5, Map No. 218R; GPA No. 11, Map No. 219; GPA No. 12, Map No. 219; Special Plan No. 2, Map No. 202; Special Plan No. 3, Map No. 218R; Special Plan No. 3, Map No. 219; ZCC No. 18, Map No. 202; ZCC No. 3, Map No. 218R; ZCC No. 14, Map No. 219; Ag. Preserve No. 19 – Exclusion, Map No. 202

**Existing KCGP Land Use Designations**

**GRAPEVINE PROJECT • SREIR**

Figure 1-3

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**LEGEND**

4.1 General Plan Land Use Designation

Existing Weigh Station  
Proposed to be relocated and the land acquired for the Grapevine Project as shown in Figure 3-4

**OVERLAY SYMBOL**

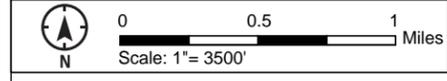
Freeway

Existing Roads

Relocated Interchange (Conceptual Location)

Specific Plan Boundary

Township & Range & Section



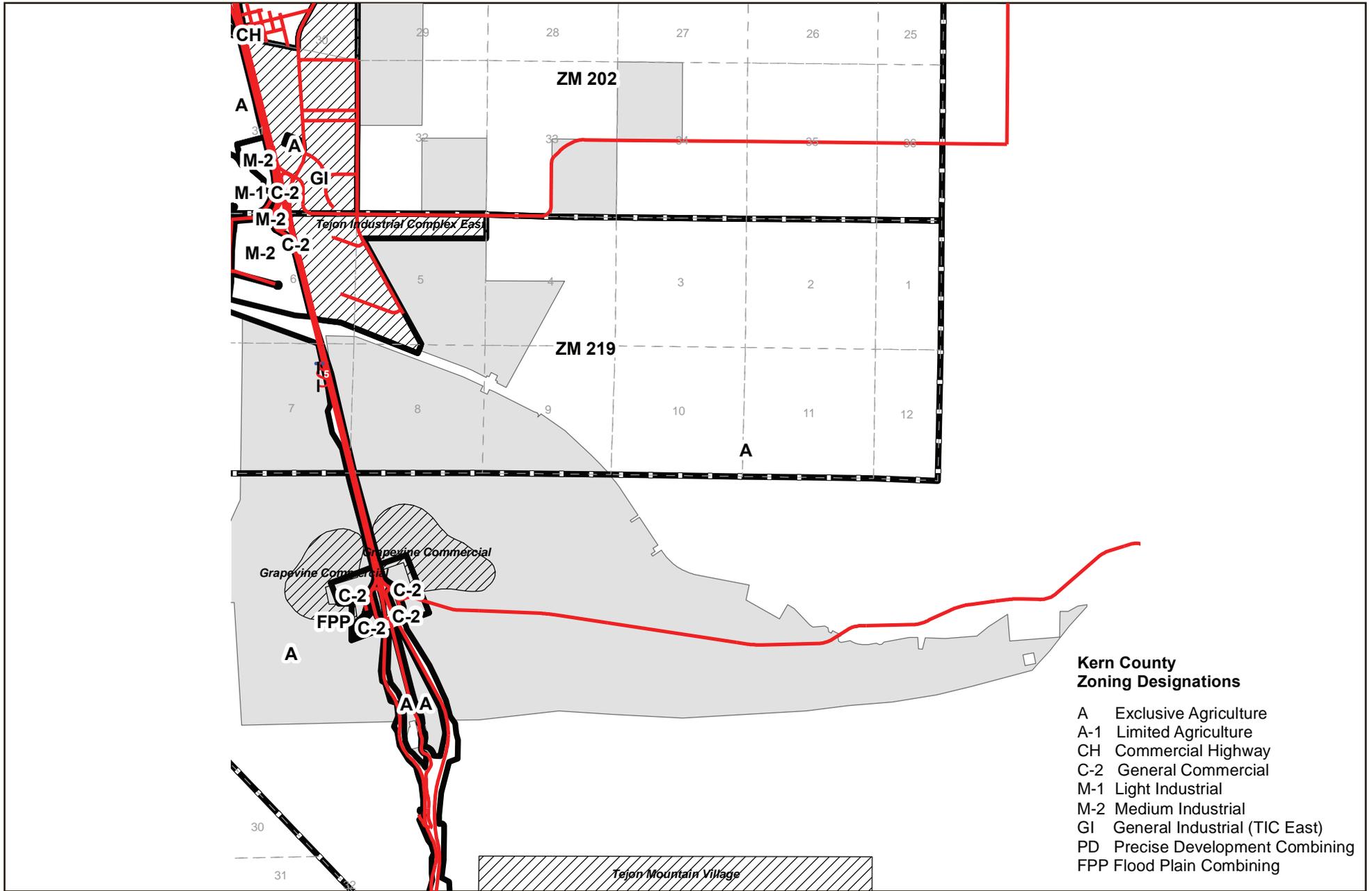
SOURCE: Tejon Ranch Company, Inc., Grapevine Specific and Community Plan

**GRAPEVINE PROJECT • SREIR**  
 SPA No. 157, Map No. 500; GPA No. 9, Map No. 202; GPA No. 10, Map No. 202; GPA No. 4, Map No. 218R; GPA No. 5, Map No. 218R; GPA No. 11, Map No. 219;  
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 ZCC No. 3, Map No. 218R; ZCC No. 14, Map No. 219; Ag. Preserve No. 19 – Exclusion, Map No. 202

**Proposed KCGP Land Use Designations**

Figure 1-4

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**GRAPEVINE PROJECT • SREIR**

SPA No. 157, Map No. 500; GPA No. 9, Map No. 202; GPA No. 10, Map No. 202; GPA No. 4, Map No. 218R; GPA No. 5, Map No. 218R; GPA No. 11, Map No. 219; GPA No. 12, Map No. 219; Special Plan No. 2, Map No. 202; Special Plan No. 3, Map No. 218R; Special Plan No. 3, Map No. 219; ZCC No. 18, Map No. 202; ZCC No. 3, Map No. 218R; ZCC No. 14, Map No. 219; Ag. Preserve No. 19 – Exclusion, Map No. 202

**Legend**

- Zone Map
- Zoning Boundaries
- Specific Plans
- Grapevine Planning Area
- Roadways



**Existing Zoning Classifications**

Figure 1-5

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**LEGEND**

SP Zoning Classification

Existing Weigh Station  
Proposed to be relocated and the land acquired for the Grapevine Project as shown in Figure 3-4

**OVERLAY SYMBOL**

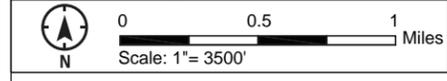
Freeway

Existing Roads

Relocated Interchange (Conceptual Location)

Specific Plan Boundary

Township & Range & Section



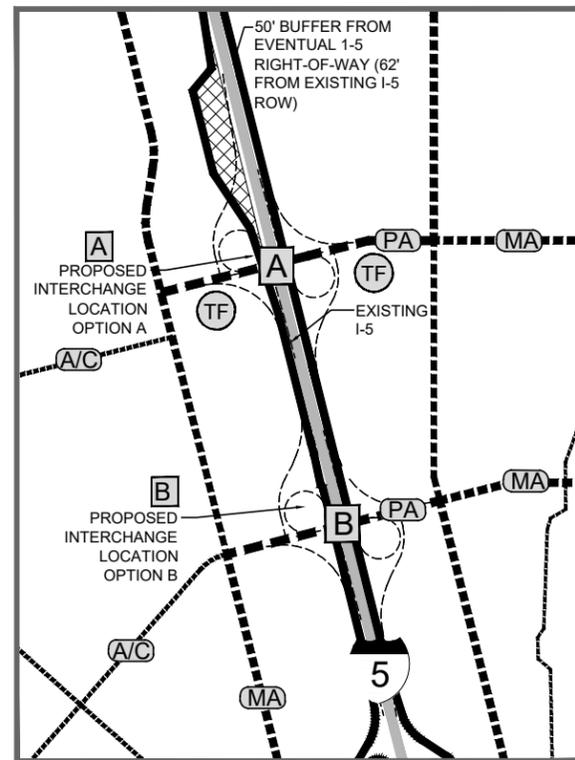
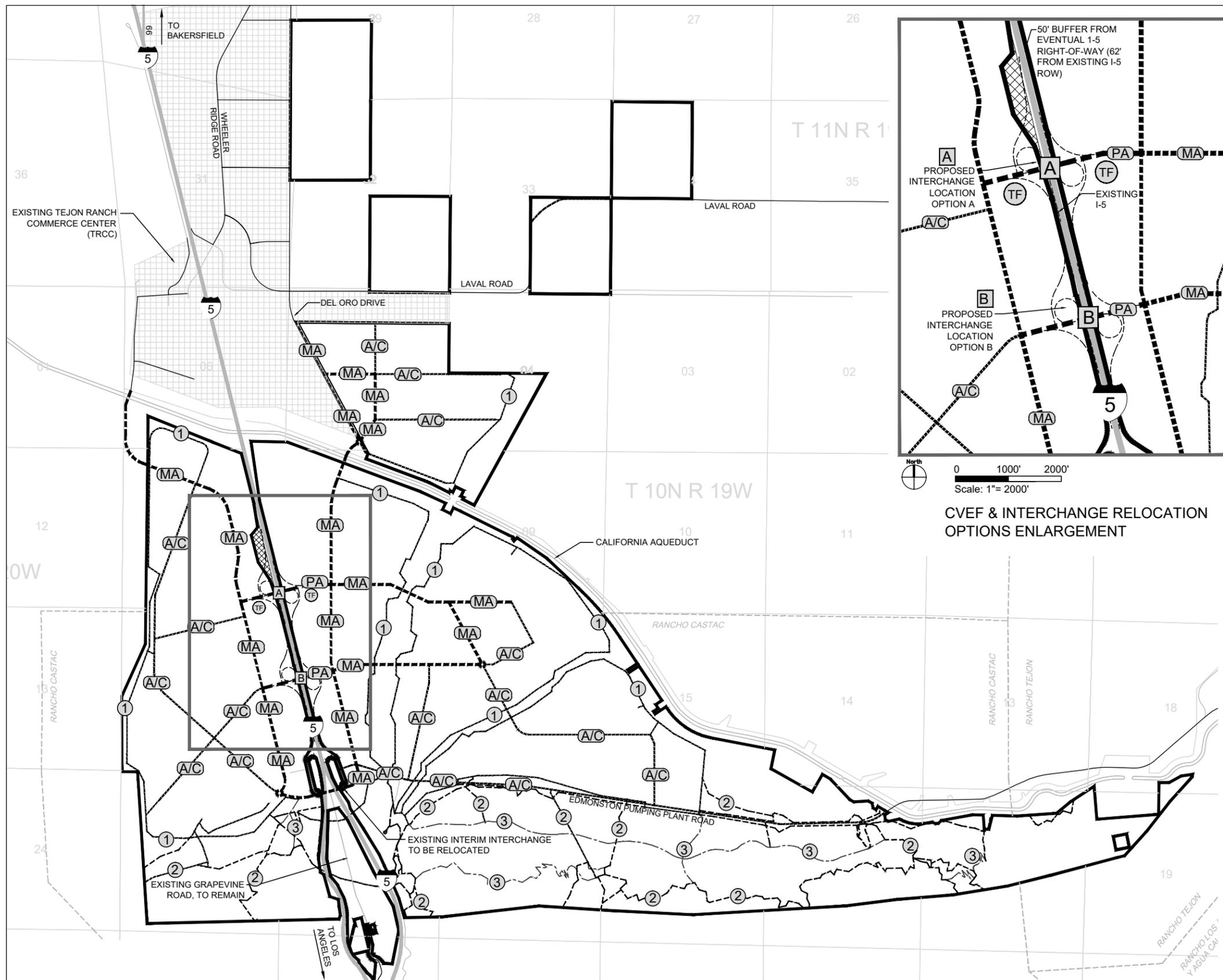
SOURCE: Tejon Ranch Company, Inc.

**GRAPEVINE PROJECT • SREIR**  
 SPA No. 157, Map No. 500; GPA No. 9, Map No. 202; GPA No. 10, Map No. 202; GPA No. 4, Map No. 218R; GPA No. 5, Map No. 218R;  
 GPA No. 11, Map No. 219; GPA No. 12, Map No. 219; Special Plan No. 2, Map No. 202; Special Plan No. 3, Map No. 218R; Special Plan No. 3, Map No. 219;  
 ZCC No. 18, Map No. 202; ZCC No. 3, Map No. 218R; ZCC No. 14, Map No. 219; Ag. Preserve No. 19 – Exclusion, Map No. 202

**Proposed Zoning Classifications**

Figure 1-6

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**LEGEND**

- Freeway
- Primary Arterial with Class I Bike Path
- Major Arterial/Collector with Class I Bike Path
- Minor Arterial/Collector with Class II Bike Lane
- Multipurpose Trails
- Unpaved Existing Trails
- Unpaved Trails
- Existing Off-Site Roads
- Relocated Interchange (Conceptual Location)
- Option A
- Option B
- Specific Plan Boundary
- Existing Weigh Station  
Proposed to be relocated and the land acquired for the Grapevine Project
- Township & Range & Section
- Transit Facility

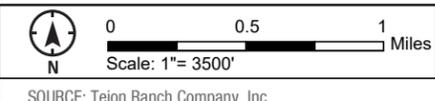
**NOTES:**

EDMONSTON PUMPING PLANT ROAD, LAVAL ROAD AND GRAPEVINE ROAD ARE EXISTING ROADS.

ALL ROADS WITHIN THE SPECIFIC PLAN WILL BE DEVELOPED IN ACCORDANCE WITH SPECIAL PLAN STANDARDS, WITH THE EXCEPTION OF LAVAL ROAD AND THE PORTION OF GRAPEVINE ROAD LOCATED BETWEEN THE NORTHBOUND AND SOUTHBOUND LANES OF I-5. SEE SPECIAL PLAN ROADWAY AND OFF-ROADWAY STREET SECTIONS FOR DESIGN OPTIONS (SPECIAL PLAN FIGURES 3-4 THRU 3-10). FINAL ROAD ALIGNMENT TO BE DETERMINED AT THE TENTATIVE TRACT MAP STAGE BUT WILL SUBSTANTIALLY CONFORM TO THOSE ILLUSTRATED ON THIS SHEET. FINAL ROAD ALIGNMENTS MAY SHIFT BY NO MORE THAN 300 FEET IN ANY DIRECTION.

TRAFFIC IMPACT ASSESSMENT SHALL DETERMINE FINAL ROADWAY OPTION SELECTION AND LANE REQUIREMENTS.

THE PRIMARY ARTERIAL WILL OCCUR AT THE SELECTED INTERCHANGE LOCATION. THE NON-INTERCHANGE LOCATION WILL REVERT TO A MAJOR ARTERIAL.



SOURCE: Tejon Ranch Company, Inc.

**GRAPEVINE PROJECT • SREIR**

SPA No. 157, Map No. 500; GPA No. 9, Map No. 202; GPA No. 10, Map No. 202; GPA No. 4, Map No. 218R; GPA No. 5, Map No. 218R; GPA No. 11, Map No. 219; GPA No. 12, Map No. 219; Special Plan No. 2, Map No. 202; Special Plan No. 3, Map No. 218R; Special Plan No. 3, Map No. 219; ZCC No. 18, Map No. 202; ZCC No. 3, Map No. 218R; ZCC No. 14, Map No. 219; Ag. Preserve No. 19 – Exclusion, Map No. 202

# Proposed Circulation Plan

Figure 1-7

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### 1.3 Purpose and Use of the Draft SREIR

An EIR is a public informational document used in the planning and decision-making process. This project-level SREIR will analyze the environmental impacts of the project. The Kern County Planning Commission and Board of Supervisors will consider the information in the SREIR, including the public comments and staff response to those comments, in conjunction with the FEIR (2016), during the public hearing process. As a legislative action, the final decision is made by the Board of Supervisors, who may approve, conditionally approve, or deny the project.

The purpose of this SREIR is to correct deficiencies identified by the court in the 2016 EIR, and analyze potential impacts to air quality, greenhouse gas, growth inducement (population and housing), hazards, noise, and transportation that may result if development builds out in a different fashion than previously analyzed and the project's development results in reduced ICR and/or higher VMT than considered for the project in the 2016 EIR. To support this purpose, this SREIR provides the following information:

- The significant potential impacts of the project on the environment under reduced ICR scenarios that were not identified or discussed in the previous EIR, and the manner in which those significant impacts can be avoided or mitigated;
- Any unavoidable adverse impacts that cannot be mitigated for reduced ICR scenarios analyzed in relation to these five issue areas, that were not identified or discussed in the previous EIR; and
- Reasonable and feasible alternatives to the project that would eliminate any significant adverse environmental impacts in the topic areas, or reduce impacts in the topic areas to a less-than-significant level, that were not identified or evaluated in the previous EIR.

This SREIR also discloses growth-inducing impacts (population and housing); impacts in the topic areas found not to be significant; and significant cumulative impacts of the project, when taken into consideration with past, present, and reasonably anticipated future projects, under reduced ICR scenarios, which were not identified in the previous EIR.

CEQA requires 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 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 project.

Reviewers of the Draft SREIR 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 effects 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.

## 1.4 Project Overview

This section describes the local and regional setting, surrounding land uses, project objectives, and project characteristics. The project is described in further detail in Chapter 3.0, *Project Description*.

### 1.4.1 Local and Regional Setting

The 8,093-acre project site, including off-site infrastructure improvements, is situated in the southern end of the San Joaquin Valley, in Kern County, within the west-central portion of the 270,000-acre Tejon Ranch, which is privately owned by Tejon Ranchcorp, within unincorporated Kern County (refer to Figures 1-1 and 1-2). The project is located south of the I-5 and State Route 99 junction, approximately 25 miles south of downtown Bakersfield, 8 miles north of the County of Los Angeles, 3.2 miles north of Lebec, 7.3 miles northeast of Frazier Park, 0.5 miles southeast of Wheeler Ridge, and 4 miles southeast of Mettler. The project is generally bounded by the Tehachapi and San Emigdio Mountains and Tejon Ranch conservation lands immediately to the south, east, and west; the Tejon Ranch Tecuya Creek Conservation Easement and Wind Wolves Preserve to the west; and the TRCC to the north. The California Aqueduct traverses the project site near the northern boundary. The Edmonston Pumping Plant Road bisects the project site from east to west, and I-5 bisects the project site from north to south.

The project site is within three U.S. 7.5-minute quadrangles: Grapevine (approximately 7195 acres); Pastoria Creek (approximately 576 acres); and Mettler (approximately 287 acres). The project is located in multiple Sections, Townships, and Ranges, including: Sections 4, 5, 6, 7, 8, and 9 of Township (T) 10 North (N), Range (R) 19 West (W); Sections 29, 30, 31, 32, 33, and 34 of T11N, R19W, all in the San Bernardino Base and Meridian. In addition, the portion of the project site south of T10N R19W Sections 7 through 12, is located within Rancho Castac, and the very southeastern tip of the project site is located in Rancho El Tejon; the areas within the Ranchos do not have Township, Range, and Section number designations. The latitude and longitude of the approximate center of the project site are 34°57'9" N and 118°55'39" W. The Universal Transverse Mercator coordinates for the approximate center are Easting 323999 meters and Northing 3869472 meters, in Zone 11.

Large-scale farming, oil and gas extraction, mining, and cattle grazing currently exist within the Tejon Ranch boundaries. These activities are overseen by the ranch headquarters located at the top of Grapevine Canyon and are subject to the Tejon Ranch Conservation and Land Use Agreement signed in 2008, which preserves approximately 240,000 acres of the ranch in open space in perpetuity. The project site contains active agricultural uses, which include almond orchards (454 acres), wine grapes (35 acres), several corrals associated with cattle ranching operations. The project site also includes a commercial area surrounding the I-5/Grapevine Road interchange, air quality monitoring facility, two north-south trending transmission corridors and a switching station, and filming uses. Grapevine, Live Oak, and Pastoria Creeks traverse the project site.

The project site is primarily undeveloped rural open space with limited existing utility services available to the site. As such, there is no existing water supply system, wastewater treatment or sewer system, stormwater drainage facilities, or gas and electric lines that serve the site. However, major regional electrical transmission lines and the California Aqueduct traverse the project site. Current and historic uses of the project site include irrigated agriculture (almond orchards), a commercial area, including hospitality facilities, surrounding the I-5/Grapevine Road interchange,

cattle grazing, air quality monitoring facility, two north-south trending transmission corridors and a switching station, and filming uses.

Several oil field administrative boundaries have been identified by the Department of Conservation Division of Oil, Gas, and Geothermal Resources near and within the project site, including the Tejon, North Tejon, Wheeler Ridge, and Tejon Hills oil fields. Tejon Ranchcorp or its affiliates own all of the oil, gas, and other subsurface mineral rights throughout the project area. Several oil and gas exploration and development leases within the project site have been established between Tejon Ranchcorp and several entities.

#### **1.4.2 Surrounding Land Uses**

Surrounding land uses to the north of the project site include the TRCC, the Tejon North oil field, and the Wheeler Ridge oil field. To the south of the project site, land uses include the Tehachapi and San Emigdio Mountains, Tejon Ranch conservation lands, Los Padres National Forest (approximately nine miles south and west), the communities of Lebec and Frazier Park, and the adopted Tejon Mountain Village Specific and Community Plan. The area west of the project site includes the Wind Wolves Preserve conservation area, Tejon Ranch Tecuya Creek Conservation Easement, and the San Emidio New Town Specific Plan. At this time, implementation of the San Emidio New Town Specific Plan requires additional discretionary actions for the Kern County Board of Supervisors' approval prior to any construction. East of the project site, land uses include the Pastoria Energy Facility, Griffith Sand and Gravel Mine, Edmonston Pumping Plant, Tejon oil field, and Tejon Hills oil field.

#### **1.4.3 Project Objectives**

The project has the following objectives:

- Respect the open space and development boundaries identified in the Tejon Ranch Conservation and Land Use Agreement executed by Tejon Ranchcorp and the Sierra Club, Audubon California, Natural Resources Defense Council, Endangered Habitats League, and Planning and Conservation League.
- Provide a proximate housing supply for existing and future employees of the TRCC and for Grapevine employers in the private and public sectors.
- Expand the economic development activity initiated at the TRCC with additional businesses that would generate commercial and retail employment opportunities and tax revenues, and expand public services and public service employment.
- Create a livable community defined by convenient access to employment, shopping, parks, schools, and housing via alternative modes of transportation in a portion of Kern County already served by major infrastructure and already developed with employment uses at the adjacent TRCC.
- Create a sustainable community that includes project design features that reduce water demand, conserve energy, incorporate water quality features, encourage alternative modes of transportation, and provide a mix of land uses with a range of housing types and densities.
- Create a community that encourages healthy living through active lifestyles and access to local agricultural products.

- Develop a land plan that conserves important natural features such as Grapevine Creek, Cattle Creek, and natural landforms to the extent feasible.
- Develop a land plan that conserves important cultural and historic resources to the extent feasible.
- Develop a land plan that respects geotechnical constraints such as earthquake faults and landslides.
- Conserve wildlife movement corridors along the foothills of the Tehachapi Mountains and California Aqueduct by conserving existing undercrossings of I-5 and by including in the land plan corridors that continue to provide wildlife with access to these undercrossings. Conserve open space that supports the Tejon Ranch's existing biological diversity and maintains its ranching heritage.
- Permanently fund community maintenance and other project obligations from revenues generated by the project, including property taxes generated within the new community.
- Create new jobs and provide new tax revenues for the local economy of Kern County while minimizing demands on County services.
- Provide flexibility in plan implementation over time to respond to changing market, financial, and environmental conditions. This flexibility could allow up to 2,000 additional dwelling units, provided that no new environmental impacts would result.

#### 1.4.4 Project Characteristics

The project is an 8,010-acre master planned community located at the southern end of the San Joaquin Valley adjacent to the existing TRCC. It would provide a new residential community and employment center that would extend the range of economic development opportunities that currently exist in TRCC and would provide options for housing and services for the existing employees of both the project site and the adjacent TRCC (Figure 1-8, *Proposed Site Plan*). The project would include the following elements:

- Approximately 4,643 acres would be developed as a residential community and employment center. The community would leverage and build upon the economic expansion and job growth that has occurred at the adjacent TRCC.
- Approximately 3,232 acres (approximately 40 percent of the project site) would be designated as Exclusive Agriculture (EA), with grazing and open space as the predominant land uses.
- A series of walkable Plan Areas, each with a village center providing neighborhood-serving retail and office uses, schools, parks, and a mix of housing, would be developed on the 4,643 acres designated for development, and would be linked by bicycle and pedestrian trails and served by transit. The new community would include:
  - Up to 12,000 dwelling units
    - Up to 2,000 additional dwelling units would be allowed if maximum commercial/industrial square footage is reduced as specified in the Grapevine Specific and Community Plan and Grapevine Special Plan.
  - Up to 5,100,000 square feet of commercial land uses composed of the following approximate areas: 1,200,000 square feet of retail; 2,450,000 square feet of office/research and development; and 1,450,000 square feet of light industrial/warehouse.

- The commercial land use may decrease with an increase of dwelling units based on vehicle trip equivalency ratios.
- Approximately 157 acres would be set aside for schools (including one high school and five kindergarten through eighth grade schools), and a minimum of 96 acres, and up to 112 acres, would be set aside for parks, depending on the ultimate number of dwelling units constructed. Other public facilities, including fire stations, a sheriff's substation, transit facilities/park-and-rides, and water and wastewater treatment facilities, are also proposed in this community.
- Improvements outside of the Grapevine Specific and Community Plan boundaries would involve 83 acres, result in a total project impact area of 8,093 acres. These impacts primarily include roadway connections west and east of the Grapevine Specific and Community Plan area and impacts associated with the option to relocate the California Vehicle Enforcement Facility.

## Plan Areas

The Grapevine Specific and Community Plan is divided into six Plan Areas and each Plan Area includes Special Plan district designations. Plan Area boundaries are based on natural and manmade features, such as changes in topography, creeks and drainages, and major roadways.

Plan Areas 1 through 6a are designed as a series of conveniently located villages, each with a unique vision based on the existing characteristics and surroundings. The Special Plan districts would aid in guiding development towards the goals of each Plan Area. Each village would contain a village center comprised of high-density housing opportunities and a mix of neighborhood-serving retail and office uses, schools, parks, and community services.

Plan Areas located closest to I-5 would include the most intensive commercial and higher-density residential uses in order to utilize freeway exposure and support efficient transportation patterns. Village centers in these Plan Areas would be designated VMU. The VMU districts are envisioned as dense mixed-use centers with compact development that would encourage walkability and meet the needs of contemporary and sustainable living.

Outside the village centers, the project would accommodate a mix of lower-density residential, office, research and development, retail, and light industrial/warehouse uses within the MU District.

The EA District is located outside the centers of each Plan Area and would serve as a buffer between adjacent development and sensitive natural resources. Sustainable agriculture opportunities would be integrated throughout the project with continued grazing in the EA District and new community gardens and in-town farms. The more intensive industrial uses (Industrial [I] District) would be prioritized for the northern parcels nearest TRCC, within Plan Areas 6b through 6e, with appropriate buffer distances required for residential and other sensitive uses.

## Phase 1 Development

Buildout of the project can occur only when capacity constraints at the existing Grapevine/I-5 interchange have been eliminated by construction of the replacement Grapevine/I-5 interchange. Initial and subsequent project phasing will be primarily informed by the project proponent's assessment of market demand for housing and commercial uses and its identifying suitable zoned land to support the desired housing, commercial, and public uses. Phasing is also informed by the

proximity of a potential development site to existing infrastructure to provide market access to the site, as well as connectivity for new project infrastructure to support developed uses and services.

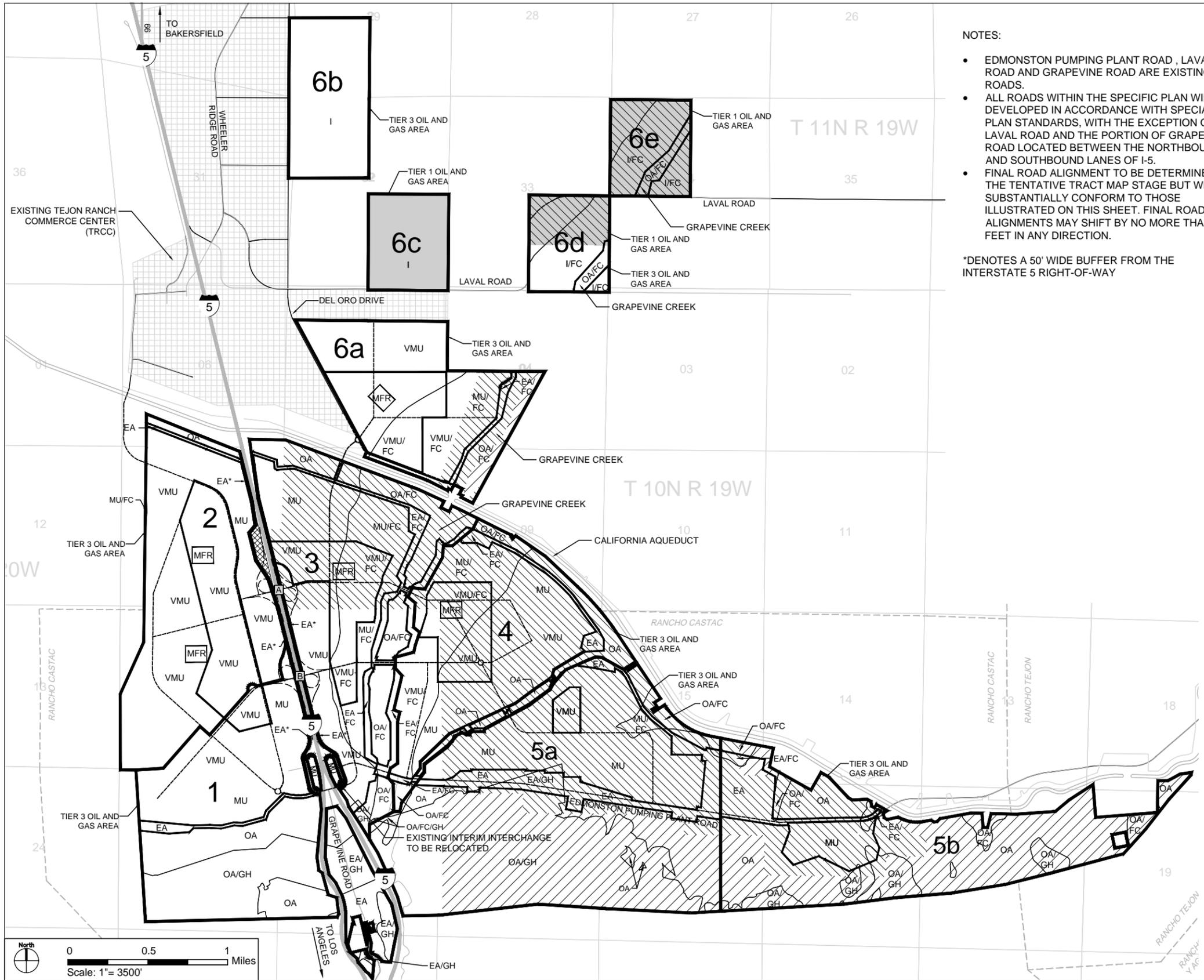
The initial Phasing Plan is shown in Exhibit 2-4 of the Specific Plan and depicts initial development areas for the project. Phase I development would occur east of I-5 in the northern portion of the project site most proximate to I-5, the TRCC, and the California Aqueduct. The initial phase of residential/commercial development will occur in the VMU or MU zones in Sub Area 6a (if the proposed Grapevine/I-5 interchange improvements have not yet been completed), or in Sub Area 3 (if the Grapevine/I-5 interchange improvements have been completed). Initial Industrial development will also occur based on market demand and, depending on the site size and configuration needs of users, is likely to occur in sequence from west to east on parcels 6b, 6c, 6d, or 6e.

### **Adoption of the Grapevine Specific and Community Plan and Corresponding Amendments to the KCGP Land Use Open Space and Conservation Element, Including Rescinded Map Codes**

The adoption of the proposed Grapevine Specific and Community Plan would change existing KCGP map code land use designations to map code 4.1 (Accepted Plan Area), as depicted on Figure 1-4, *Proposed KCGP Land Use Designations*. The project would also require amendments to the Circulation Element of the KCGP to address changes to the planned circulation system, including the elimination of the collector and arterial designations. Within the Grapevine Specific and Community Plan, four specialized zone classifications are identified for the Plan Areas and are set forth in the Grapevine Special Plan. All of the land within the Plan Areas would be assigned one of these specialized district classifications. In addition, there are two combining districts that apply to areas identified as having potential geologic or flooding hazards: Geologic Hazard (GH) and Floodplain (FP) Combining Districts. The Multi-Family Residential (MFR) Combining District requires multi-family residential either as a stand-alone use or as a minimum of 50 percent of the total floor area of a mixed-use development on specified parcels in the MU and VMU districts. The combining districts encompass the area within the four specialized districts and are not stand-alone districts (Figure 1-9, *Proposed Specific and Special Plan Districts*). These districts and combining districts are the same as those in the Grapevine Special Plan and include:

**Village Mixed Use (VMU).** This district would serve as the Village Core and provides a variety of compatible land uses, including neighborhood serving retail, service-oriented commercial, office, and higher density residential uses (6 to 72 dwelling units/net acre).

**Mixed Use (MU).** This district would provide for a broader mix of land uses, including a variety of residential (1 dwelling unit/5 net acres to 40 dwelling units/net acre), office, retail commercial, light industrial, warehouse, and other uses that are compatible with adjacent land uses.



**NOTES:**

- EDMONSTON PUMPING PLANT ROAD, LAVAL ROAD AND GRAPEVINE ROAD ARE EXISTING ROADS.
- ALL ROADS WITHIN THE SPECIFIC PLAN WILL BE DEVELOPED IN ACCORDANCE WITH SPECIAL PLAN STANDARDS, WITH THE EXCEPTION OF LAVAL ROAD AND THE PORTION OF GRAPEVINE ROAD LOCATED BETWEEN THE NORTHBOUND AND SOUTHBOUND LANES OF I-5.
- FINAL ROAD ALIGNMENT TO BE DETERMINED AT THE TENTATIVE TRACT MAP STAGE BUT WILL SUBSTANTIALLY CONFORM TO THOSE ILLUSTRATED ON THIS SHEET. FINAL ROAD ALIGNMENTS MAY SHIFT BY NO MORE THAN 300 FEET IN ANY DIRECTION.

\*DENOTES A 50' WIDE BUFFER FROM THE INTERSTATE 5 RIGHT-OF-WAY

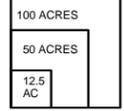
**LEGEND**

	Village Mixed Use
	Mixed Use
	Multi-Family Residential
	Industrial
	Open Area District
	Exclusive Agriculture District
	Floodplain Combining District
	Geologic Hazard Combining District
	<b>Williamson Act Status:</b> Non-Renewal Filed 2014 (Expiration will occur on December 31, 2023)
	Non-Renewal Filed 2016 (Expiration will occur on December 31, 2025) NOTE: Until the Williamson Act contracts expire or are terminated, the existing terms of use remain in effect and the Exclusive Agriculture (A) zoning remains in place. Upon expiration or termination of the contracts, the Specific Plan's EA district will replace the existing A zoning designation. Refer to Figure 19.98.015, Oil and Gas Activities Boundary Area Map in Chapter 19.98 of the KCZO for the delineation of Tier 1 and Tier 2 Oil and Gas Areas within the interim A zoning district.
	<b>Existing Weigh Station</b> Proposed to be relocated and the land acquired for the Grapevine Project
	<b>Tier 1 Oil and Gas Areas</b>
	<b>Tier 3 Oil and Gas Areas</b> Note: Oil and Gas facility permitting is subject to the provisions of the Grapevine Specific Plan, Grapevine Special Plan, and Chapter 19.98, Oil and Gas activities, of the Kern County Zoning Ordinance.

**OVERLAY SYMBOL**

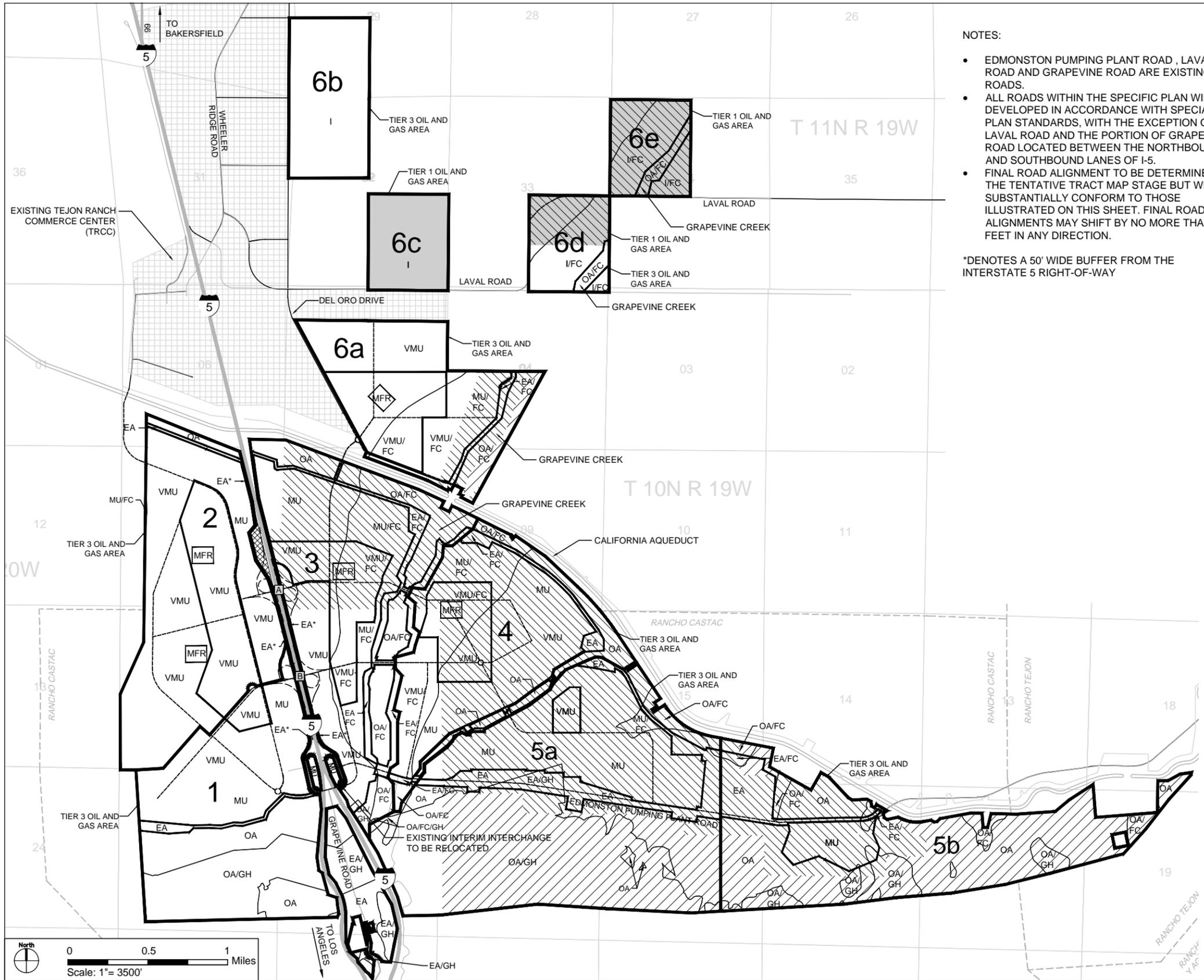
	Freeway
	Framework Circulation - Arterials & Collectors
	Existing Off-Site Roads
	Relocated Interchange (Conceptual Location)
	Option A
	Option B
	Sub Area Boundary & Number
	Township & Range & Section

**ACREAGE COMPARABLE**



**FIGURE 1-8**  
**Proposed Site Plan**

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**NOTES:**

- EDMONSTON PUMPING PLANT ROAD, LAVAL ROAD AND GRAPEVINE ROAD ARE EXISTING ROADS.
- ALL ROADS WITHIN THE SPECIFIC PLAN WILL BE DEVELOPED IN ACCORDANCE WITH SPECIAL PLAN STANDARDS, WITH THE EXCEPTION OF LAVAL ROAD AND THE PORTION OF GRAPEVINE ROAD LOCATED BETWEEN THE NORTHBOUND AND SOUTHBOUND LANES OF I-5.
- FINAL ROAD ALIGNMENT TO BE DETERMINED AT THE TENTATIVE TRACT MAP STAGE BUT WILL SUBSTANTIALLY CONFORM TO THOSE ILLUSTRATED ON THIS SHEET. FINAL ROAD ALIGNMENTS MAY SHIFT BY NO MORE THAN 300 FEET IN ANY DIRECTION.

\*DENOTES A 50' WIDE BUFFER FROM THE INTERSTATE 5 RIGHT-OF-WAY

**LEGEND**

VMU	Village Mixed Use
MU	Mixed Use
MFR	Multi-Family Residential
I	Industrial
OA	Open Area District
EA	Exclusive Agriculture District
FC	Floodplain Combining District
GH	Geologic Hazard Combining District
	<b>Williamson Act Status:</b> Non-Renewal Filed 2014 (Expiration will occur on December 31, 2023)
	<b>Non-Renewal Filed 2016</b> (Expiration will occur on December 31, 2025) NOTE: Until the Williamson Act contracts expire or are terminated, the existing terms of use remain in effect and the Exclusive Agriculture (A) zoning remains in place. Upon expiration or termination of the contracts, the Specific Plan's EA district will replace the existing A zoning designation. Refer to Figure 19.98.015, Oil and Gas Activities Boundary Area Map in Chapter 19.98 of the KCZO for the delineation of Tier 1 and Tier 2 Oil and Gas Areas within the interim A zoning district.
	<b>Existing Weigh Station</b> Proposed to be relocated and the land acquired for the Grapevine Project
	<b>Tier 1 Oil and Gas Areas</b>
	<b>Tier 3 Oil and Gas Areas</b> Note: Oil and Gas facility permitting is subject to the provisions of the Grapevine Specific Plan, Grapevine Special Plan, and Chapter 19.98, Oil and Gas activities, of the Kern County Zoning Ordinance.

**OVERLAY SYMBOL**

	Freeway
	Framework Circulation - Arterials & Collectors
	Existing Off-Site Roads
	Relocated Interchange (Conceptual Location)
	Option A
	Option B
	Sub Area Boundary & Number
	Township & Range & Section

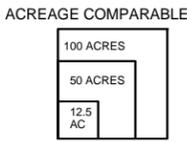
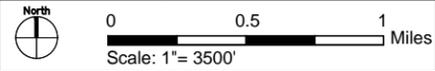


FIGURE 1-9  
Proposed Specific and Special Plan Districts

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**Exclusive Agriculture (EA).** This district would be consistent with the intent and purpose of the existing EA (Exclusive Agriculture) Zone Classification within Chapter 19.12 of the Kern County Zoning Ordinance. It is located outside the centers of each Sub Area and would serve as a buffer between adjacent development and sensitive natural resources. It is an agricultural open space that allows for up to 100 acres of new irrigated agricultural uses and limited ground disturbance for open space uses like the paved multi-use trails, trailhead parking, debris basins, and fenced detention basins, while continuing to provide a buffer of open space between the development Sub Areas and the OA District. Existing residences at the time of project approval would be retained in the EA district; however, no new residences are authorized within this EA District, except those accessory to a primary permitted use.

**Open Area (OA).** The OA District includes the southern foothills and corridors along the aqueduct and creeks. It is the most restrictive zoning, generally allowing grazing, unpaved trail connections/ underground utility corridor across the aqueduct, unfenced basins (which will be grazed), bridge footings across the creek corridors, and existing water turnouts in the foothills.

**Industrial (I).** This district is limited to Plan Areas 6b through 6e and would provide for a variety of industrial park, research and development, commercial, manufacturing, warehouse, energy generation, and other uses that are compatible with adjacent land uses.

**Geologic Hazard (GH) Combining District.** The purpose of the GH Combining District is to protect the public's health and safety and minimize property damage by designating areas that are subject to or potentially subject to surface faulting, ground shaking, ground failure, landslides, mudslides, or other potential geologic hazards including liquefaction, lateral spreading, and seismically induced densification and settlement by establishing restrictions on land use in such areas.

**Floodplain Combining District (FC).** The purpose of the FC Combining District is to protect the public health and safety and minimize property damage by designating areas that are potentially subject to flooding and by establishing reasonable restrictions on land use in such areas. The FC Combining District shall be applied to those areas lying within Zone A on the Flood Insurance Rate Maps or those areas potentially subject to flooding as designated by the Kern County Public Works Department pending reclassification of such areas into Floodplain Primary (FPP) or the Floodplain Secondary (FPS) delineated areas. The regulations established by the FC Combining District shall be in addition to the regulations of the base zoning classifications with which the FC Combining District is combined.

**Multi-Family Residential (MFR) Combining District.** The purpose of the MFR Combining District is to require the development of multi-family residential use in the VMU and MU districts on specified parcels. The combining district authorizes owner-occupied and rental multi-family residential use, which may be built as an exclusive use or in mixed use when multi-family residential use occupies a minimum of 50 percent of the floor area of a mixed-use project. Figure 1-3 of the Special Plan identifies the locations of the MFR Combining District. Specific sites are identified by assessor parcel number in Section 2 of the Special Plan and are generally located in or adjacent to village centers and near major roadways for transportation access. The Special Plan allows for the transfer of acreage between sites and the exchange of sites to other locations within the VMU and MU districts through a minor modification, provided that a minimum of 16 acres is zoned for the MFR Combining District, a minimum of three sites are identified within the Specific Plan area, and multi-family residential units are developed within the combining district at buildout

of the Grapevine Specific Plan. A multi-family dwelling may include duplexes, triplexes, quadruplexes, apartments, condominiums, and townhouses. Density shall comply with the underlying district density allowance.

### **Amendment of the County Zone Maps (ZCCs)**

To facilitate implementation of the Grapevine Specific and Community Plan, the project would change existing zone classifications on the Plan Areas to SP District – Grapevine Special Plan, in accordance with Section 19.52, Special Planning District, of the Kern County Zoning Ordinance.

### **Adoption of the Grapevine Special Plan (SP)**

The adoption of the proposed Grapevine Special Plan is required for implementation of the SP District, which must be consistent with the KCGP and the Grapevine Specific and Community Plan. The Grapevine Special Plan is divided into 11 Plan Areas, and each Plan Area includes Special Plan district designations. The Grapevine Special Plan would be designed to allow diversity in the relationship between buildings and open spaces so as to create unique, interesting physical environments that maximize walkability, provide housing opportunities, and are proximate to commercial, jobs, community services, and usable open space, while preserving public health, safety, and welfare. The Grapevine Special Plan would include district classifications for the Plan Areas, caps that limit the amount of development allowed within the Plan Areas, and variations from other County ordinances and standards. The Grapevine Special Plan would include four specialized districts, the same as identified in the Grapevine Specific and Community Plan. The MFR Combining District requires multi-family residential either as a stand-alone by right use or as a minimum of 50 percent of the total floor area of a mixed-use development on designated parcels in the MU and VMU districts. In addition, there are two combining districts that apply to areas identified as having potential geologic or flooding hazards: Geologic Hazard (GH) and Floodplain (FP) Combining Districts. The combining districts encompass the area within the four specialized districts and are not stand-alone districts. These districts and combining districts are the same as those in the Grapevine Specific and Community Plan.

### **Exclusion from Agricultural Preserve No. 19**

An agricultural preserve defines the boundary of an area within Kern County that meets the criteria for property owners to enter into Williamson Act land use contracts and Farmland Security Zone contracts. Only land within an agricultural preserve is eligible for such contracts. The Kern County Board of Supervisors has established policies that include criteria for inclusion into a preserve as land having a KCGP resource land use designation (map codes 8.1, 8.2, 8.3, and 8.5), and having a zone classification of EA (Exclusive Agriculture). The project site is located entirely within Kern County Agricultural Preserve No. 19 and is bounded on the west by Kern County Agricultural Preserves No. 4 and No. 12. Thus, the project would request removal of the project site from Agricultural Preserve No. 19.

## **1.5 Environmental Impacts**

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

The contents of this Draft SREIR were established based on a Notice of Preparation (NOP)/Initial Study (IS) prepared in accordance with the CEQA Guidelines, as well as public and agency input that was received during the scoping process. The comments to the NOP/IS are found in Appendix A (Volume 2) of this document.

### **1.5.1 Impacts Not Further Considered in this SREIR**

As discussed in the 2016 NOP/IS (Volume 6 Appendix A) and the 2019 NOP/IS (Volume 2 Appendix A), the project was determined to have no impact with regard to the following impact thresholds. These issues are not analyzed further in this SREIR.

#### **Agriculture and Forest Resources**

- Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)), or timberland (as defined by Public Resources Code Section 4526), or timberland zoned Timberland Productions (as defined in Government Code Section 51104(g))n
- Result in the loss of forest land or conversion of forest land to non-forest land

#### **Hazards and Hazardous Materials**

- For a project located within the adopted Kern County Airport Land Use Compatibility Plan or within two miles of a public airport, would the project result in a safety hazard for people residing or working in the project area?

#### **Land Use and Planning**

- Physically Divide an Established Community.

#### **Noise**

- 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?

#### **Population and Housing**

- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

#### **Transportation and Traffic**

- Conflict with an Applicable Congestion Management Program, Including, but not Limited to Level of Service (LOS) Standards and Travel Demand Measures, or Other Standards Established by the County Congestion Management Agency for Designated Roads or Highways; Specifically, Would Implementation of the Project Cause the LOS for Roadways and/or Intersections to Decline Below the Following Thresholds or Further Degrade Already Degraded Segment(s):
  - i. Metropolitan Bakersfield General Plan LOS “C”

## 1.5.2 Impacts of the Proposed Project

### No Potential for Impacts to Occur

Potential environmental effects of the project and mitigation measures are discussed in detail in Chapter 4 of this SREIR and the 2016 FEIR (Volume 5). After full analysis, the following effects were determined to have no potential for impacts to occur:

#### Aesthetics

- Impact 4.1-1: Have a substantial adverse effect on a scenic vista
- Impact 4.1-2: Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway.

#### Air Quality

- 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 (including releasing emissions which exceed quantitative thresholds for ozone precursors). Specifically, would implementation of the project exceed any of the following adopted thresholds:

##### *Eastern Kern Air Pollution Control District:*

- Operational and Area Sources:
  - reactive organic gases (ROG): 25 tons per year,
  - oxides of nitrogen (NO<sub>x</sub>): 25 tons per year, and
  - particulate matter (PM<sub>10</sub>): 15 tons per year;
- Stationary Sources, as Determined by District Rules:
  - 25 tons per year

#### Biological Resources

- Impact 4.4-3: Have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Impact 4.4-6: Conflict with provisions of an Adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other Approved Local, Regional, or State Habitat Conservation Plan

#### Geology and Soils

- Impact 4.6-8: Have Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Wastewater Disposal Systems Where Sewers Are Not Available for the Disposal of Wastewater

#### Hazards and Hazardous Materials

- Impact 4.8-5: For a Project Located within the Vicinity of a Private Airstrip, would the Project Result in a Safety Hazard for People Residing or Working in the Project Area?

**Land Use and Planning**

- Impact 4.10-2: Conflict with any Applicable Habitat Conservation Plan or Natural Community Conservation Plan.

**Noise**

- Impact 4.12-2: Exposure of Persons to, or Generate, Excessive Ground Borne Vibration or Ground Borne Noise Levels.

**Recreation**

- Impact 4.15-1: Result in Increased Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities Such That Substantial Physical Deterioration Would Occur or Be Accelerated.

**Less than Significant with Incorporation of Mitigation Measures**

Potential environmental effects of the project and mitigation measures are discussed in detail in Chapter 4 of this SREIR and the 2016 FEIR (Volume 5). After full analysis, the following effects were determined to be less than significant with the incorporation of mitigation measures.

**Agricultural Resources**

- Impact 4.2-2: Conflict with existing agricultural zoning or Williamson Act contracts.
- Impact 4.2-4: Result in the cancellation of an open space contract made pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for any parcel of 100 or more acres

**Air Quality**

- Impact 4.3-1: The Project Would Conflict with or Obstruct Implementation of the Applicable Air Quality Plan
- Impact 4.3-4: The Project Would Expose Sensitive Receptors to Substantial Pollutant Concentration

**Biological Resources**

- Impact 4.4-4: 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
- Impact 4.4-5: Conflict with Any Local Policies or Ordinances Protecting Biological Resources, Such as a Tree Preservation Policy or Ordinance

**Cultural Resources**

- Impact 4.5-1: Cause a Substantial Adverse change in the Significance of a Historical or Archaeological Resource as Defined in Section 15064.5
- Impact 4.5-2: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature

- Impact 4.5-3: Disturb any Human Remains, Including those Interred Outside of Formal Cemeteries
- Impact 4.5-4: Contribute to Cumulative Cultural Resources Impacts

### **Geology and Soils**

- Impact 4.6-1: Expose People or Structures to Substantial Adverse Effects, Including the Risk of Loss, Injury or Death Involving the Rupture of A Known Earthquake Fault
- Impact 4.6-2: Expose People or Structures to Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Strong Seismic Ground Shaking
- Impact 4.6-3: Expose People or Structures to Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Seismic-related Ground Failure, Including Liquefaction
- Impact 4.6-4: Expose People or Structures to Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Landslides
- Impact 4.6-5: Result in Substantial Soil Erosion or Loss of Topsoil
- Impact 4.6-6: 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
- Impact 4.6-7: Be Located on Expansive Soil, as Defined in Section 1802.3.2 of the California Building Code (2007), Creating Substantial Risks to Life or Property
- Impact 4.6-9: Contribute to Cumulative Geologic and Soils Impacts

### **Hazards and Hazardous Materials**

- Impact 4.8-1: Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials
- Impact 4.8-2: 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
- Impact 4.8-3: Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School
- Impact 4.8-4: Create a Hazard to Public or the Environment as a Result of Being Located on a Site that is Included on a List of Hazardous Material Sites Compiled Pursuant to Government Code Section 65962.5
- Impact 4.8-6: Impair Implementation of, or Physically Interfere with, an Adopted Emergency Response Plan or Emergency Evacuation Plan
- Impact 4.8-7: Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildland Fires, Including Where Wildlands are Adjacent to Urbanized Areas or Where residences are Intermixed with Wildlands
- Impact 4.8-8: Would Implementation of the Project Generate Vectors or Have a Component That Includes Agricultural Waste Exceeding Adopted Qualitative Thresholds

- Impact 4.8-9: Cumulative Hazards and Hazardous Materials Impacts

### **Hydrology and Water Quality**

- Impact 4.9-1: Violate Any Water Quality Standards or Waste Discharge Requirements
- Impact 4.9-2: Substantially Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That There Would be a Net Deficit in Aquifer Volume or a Lowering of the Local Groundwater Table Level
- Impact 4.9-3: Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner Which Would Result in Substantial Erosion or Siltation On-site or Off-site
- Impact 4.9-4: Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner Which Would Result in Substantial Flooding On-site or Off-site
- Impact 4.9-5: 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
- Impact 4.9-6: Otherwise Substantially Degrade Water Quality
- Impact 4.9-7: Place Housing within a 100-Year Flood Hazard Area as Mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate Map or Other Flood Hazard Delineation Map
- Impact 4.9-8: Place Structures within a 100-Year Flood Hazard Area Which Would Impede or Redirect Flood Flows
- Impact 4.9-9: Expose People or Structures to a significant risk of Loss, Injury, or Death Involving Flooding, Including Flooding as a Result of the Failure of a Levee or Dam
- Impact 4.9-10: Result in Inundation by Seiche, Tsunami, or Mudflow
- Impact 4.9-11: Contribute to Cumulative Hydrology and Water Quality Impacts

### **Land Use and Planning**

- Impact 4.10-1: Conflict with any Applicable Land Use Plan, Policy, or Regulation of an Agency with Jurisdiction Over the Project Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect
- Impact 4.10-3: Contribute to Cumulative Land Use Impacts

### **Mineral Resources**

- Impact 4.11-1: 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
- Impact 4.11-2: 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
- Impact 4.11-3: Contribute to Cumulative Mineral Resources Impacts

**Noise**

- Impact 4.12-1: Exposure of Persons to, or Generation of, Noise Levels in Excess of Standards Established in the Local General Plan or Noise Ordinance or Applicable Standards of Other Agencies
- Impact 4.12-3: Substantial Permanent Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing without the Project
- Impact 4.12-5: For a Project within the Vicinity of a Private Airstrip, Exposure of People Residing or Working in the Project Area to Excessive Noise Levels

**Public Services**

- Impact 4.14-1: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Fire Protection
- Impact 4.14-2: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Police/Sheriff Protection Services
- Impact 4.14-3: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for School Services
- Impact 4.14-4: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Park Services
- Impact 4.14-5: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Library Services
- Impact 4.14-6: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Medical Services
- Impact 4.14-7: Contribute to Cumulative Public Service Impacts

**Recreation**

- Impact 4.15-2: Include Recreational Facilities or Require Construction or Expansion of Recreational Facilities That Might Have an Adverse Physical Effect on the Environment
- Impact 4.15-3: Contribute to Cumulative Recreation Impacts

**Transportation and Traffic**

- Impact 4.16-1: Conflict with an Applicable Plan, Ordinance, or Policy Establishing Measures of Effectiveness for the Performance of the Circulation System
- Impact 4.16-2: Conflict with an Applicable Congestion Management Program, Including, but Not Limited to Level of Service Standards and Travel Demand Measures, or Other Standards Established by the County Congestion Management Agency or Adopted County Threshold for Designated Roads or Highways
- Impact 4.16-3: Change in Air Traffic Patterns That Result in Substantial Safety Risks
- Impact 4.16-4: Substantially Increase Hazards Due to a Design Feature or Incompatible Uses
- Impact 4.16-5: Result in Inadequate Emergency Access
- Impact 4.16-6: Conflict with Adopted Policies, Plans, or Programs Supporting Alternative Transportation

**Utilities and Service Systems**

- Impact 4.17-1: Exceed Wastewater Treatment Requirements of the Applicable Regional Water Quality Control Board
- Impact 4.17-2: Require or Result in the Construction of New Water or Wastewater Treatment Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Effects
- Impact 4.17-3: Require or Result in the Construction of New Stormwater Drainage Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Effects
- Impact 4.17-4: Have Sufficient Water Supplies Available to Serve the Project from Existing Entitlements and Resources, or Are New or Expanded Entitlements Needed
- Impact 4.17-5: Be Served by a Landfill with Sufficient Permitted Capacity to Accommodate the Project's Solid Waste Disposal Needs
- Impact 4.17-6: Comply with Federal, State, and Local Statutes and Regulations Related to Solid Waste
- Impact 4.17-7: Exceed Capacity of an Energy Supplier to Meet the Project's Need

**Unavoidable Significant Adverse Impacts**

Section 15126.2(b) of the CEQA Guidelines 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 of this SREIR. The following environmental impacts were determined in the 2016 EIR

to be significant and unavoidable impacts. Unavoidable significant adverse impacts related to air quality, greenhouse gas, noise, population and housing, and transportation and traffic under the Updated 28.7% HBW ICR and the five Reduced ICR scenarios are reflected in Table 1-1, *Summary of Significant Impacts of the Project*, below.

**Table 1-1 Summary of Significant Impacts of the Project and Reduced ICR Scenarios**

Resources	Project Impacts	Cumulative Impacts
Aesthetics	Although implementation of mitigation measures would reduce the adverse visual changes experienced at individual key observation point locations, there are no mitigation measures that would allow for the preservation of the existing day or dark nighttime character of the area; and the resultant visual impact is considered <b>significant and unavoidable</b> .	The project would be create additional views to hardscape features in a relatively natural landscape, the project would create new sources of light and glare, and the project's cumulative contribution after implementation of the recommended mitigation measures would remain <b>cumulatively significant and unavoidable</b> as a result of these changes in character and quality.
Agriculture and Forestry Resources	The project is located on prime farmland and would directly convert agricultural land to non-agricultural land uses. Although mitigation would preserve farmland within Tejon Ranch, as well as within the San Joaquin Valley, it would not provide additional farmland to replace the loss of prime farmland or other agricultural land as a result of the project. Mitigation measures would be required which is a <b>significant and unavoidable</b> impact.	The KCGP anticipated conversion of agricultural lands to urban development, and this project falls within the projected acreage loss identified in the KCGP and accompanying EIR. However, the project would contribute to the loss of agricultural land and prime farmland incrementally. Impacts would be <b>cumulatively significant and unavoidable</b> even with the implementation of mitigation measures.
Air Quality	ROG and NO <sub>x</sub> emissions during construction would result in temporary increases above the established thresholds. CO emissions during project operation would exceed SJVAPCD thresholds. Since the project could locate land uses with sources that have the potential to generate substantial odors in close proximity to receptors, as well as locate sensitive receptors in an area with existing ambient odors Even with mitigation measures, temporary (construction) and permanent (operation) impacts are considered <b>significant and unavoidable</b> .	Annual ROG emissions during construction would result in temporary significant impacts. Even with implementation of mitigation measures, cumulative emissions of ROG are considered <b>cumulatively significant and unavoidable</b> .
Biological Resources	Mitigation measures generally reduce impacts to less than significant levels but the project would result in the development of lands currently serving as habitat for animals with sensitive species status, and is likely to result in adverse impacts to those individuals. Additionally, inherent uncertainties affect the annual and seasonal effectiveness of mitigation measures (e.g., based on drought or wildfire conditions), hence, this project-level impact is considered <b>significant and unavoidable</b> to species and their habitat	The project, in conjunction with the other cumulative projects, has the potential to reduce suitable habitat, distribution, and/or the overall population size, of special-status wildlife species such that they would be vulnerable to environmental variability and would be at a higher risk of becoming imperiled. Even with project-specific mitigation measures, the impacts to biological resources, when considered cumulatively on a region-wide scale, would be <b>cumulatively significant and unavoidable</b> .
Greenhouse Gas Emissions	Construction and operation of the project would result in GHG emissions from vehicular traffic, area sources (landscaping maintenance), electrical generation, natural gas consumption, water supply and wastewater treatment, and solid waste. Although many other agencies with the necessary jurisdiction are currently taking action to reduce GHG emissions, the County cannot assure that these measures would ultimately be implemented or sufficient to address climate change. Therefore,	Although many other agencies with the necessary jurisdiction are currently taking action to reduce GHG emissions, the County cannot assure that these measures would ultimately be implemented or sufficient to address climate change. Therefore, GHG emissions would be considered <b>cumulatively significant and unavoidable</b> .

**Table 1-1 Summary of Significant Impacts of the Project and Reduced ICR Scenarios**

Resources	Project Impacts	Cumulative Impacts
	GHG emissions would be considered <b>significant and unavoidable</b> .	
Noise	Mitigation measures would provide for the best available measures for the reduction of construction noise impacts, should any site plan refinements occur during the project review and approval process that result in project noise sources moving closer to sensitive receptors to the extent that significant impacts would occur to sensitive receptors. While the implementation of Mitigation Measures, would help to reduce the impacts of the project, noise impacts would be <b>significant and unavoidable</b> .	The project would introduce new sources of noise and groundborne vibrations during construction and operation of the project. Even with implementation of mitigation measures, the project, when combined with past, present, and reasonably foreseeable project, would result in a <b>cumulatively significant and unavoidable</b> noise impact.
Population and Housing	There are no feasible mitigation measures to avoid direct and indirect population growth at the project site while achieving any of the project objectives of developing a sustainable new mixed-use community near employment and retail centers of the TRCC. Impacts related to growth are <b>significant and unavoidable</b> .	Although the project is located in an area designated for future urbanized development in the RTP/SCS, the net increase in population on the project site, in combination with past, present, and reasonably foreseeable projects, would contribute to population growth associated in the region. Impacts would be <b>cumulatively significant and unavoidable</b> .
Transportation and Traffic	Mitigation measures would reduce impacts related to implementation of the project for transportation and traffic to <b>less than significant</b> .	The project in combination with past, present, and reasonably foreseeable projects would result in <b>cumulatively significant and unavoidable</b> traffic related impacts regarding conflicting with applicable plans, ordinances and policies, and contributing to the cumulative exceedance of LOS standards.
Utilities and Service Systems	Mitigation measures would reduce impact for utilities and service systems to a <b>less than significant level</b> .	Cumulative impacts relative to regional groundwater resources would be significant and unavoidable due to existing regional conditions, and the potential that TCWD may elect to use groundwater as one of the potential water supplies used to serve the project after 2078. Impacts would be <b>cumulatively significant and unavoidable</b> .

### 1.5.3 Significant Cumulative Impacts

According to Section 15355 of the CEQA Guidelines, 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.

The 2016 EIR and this SREIR considered the potential cumulative effects of the Updated 28.7% HBW ICR and five Reduced ICR Scenarios related to traffic, air pollution, greenhouse gas, noise, public health, and growth inducing impacts. With respect to those impact categories, impacts for the following issue areas have been found to be cumulatively considerable:

- Air Quality;
- Greenhouse Gas Emissions;

- Noise;
- Population and Housing; and
- Transportation and Traffic.

Each of these significant cumulative impacts is discussed in the applicable section of Chapter 4, *Supplemental Environmental Analysis*, of this SREIR.

#### 1.5.4 Growth Inducement

The KCGP recognizes that certain forms of growth are beneficial, both economically and socially. Section 15126.2(d) of the CEQA Guidelines provides the following guidance on growth-inducing impacts: a project is identified as growth inducing if it “could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.”

Growth inducement can be a result of new development that requires an increase in dwelling units or an increase in employment, removes barriers to development, or provides resources that lead to secondary growth. The project would add new residential, commercial, and industrial uses to the project site, representing a substantial increase in population and housing relative to existing conditions. This is considered a significant impact that would also induce growth in the surrounding area. Increased off-site employment growth or off-site population and housing growth would occur in one or more of the Reduced ICR Scenarios, in comparison to the growth inducement impacts analyzed in the 2016 EIR. Growth inducement is discussed in detail in Section 4.13, *Population and Housing*, of this SREIR.

With respect to residential land uses, the project is anticipated to result in a net increase above existing conditions of between 38,400 and 44,800 residents at buildout. The project would accordingly result in substantial population growth on the project site, consistent with the project objectives of development of a sustainable new mixed-use community near the employment and retail centers at the TRCC.

The project could accommodate a portion of the planned growth in County population, employment, and housing, and help meet the County’s need to accommodate residential growth in an environmentally superior development pattern that includes sustainable, mixed-use community design features. The project would represent approximately 30 percent of the total housing needs for the 9-year period in unincorporated Kern County (21,583 units) and approximately 9 percent of the housing needs for the County as a whole (67,675 units).

With respect to employment during construction, the project would not induce substantial growth because it would employ primarily people who already live in Kern County. Some portion of the construction workforce may relocate to the Lebec, Arvin, and other cities in Kern County, which would create a potential demand for existing vacant and entitled new residential units. At full buildout, the commercial, industrial, and other land uses within the project site would require an operational work force of approximately 8,720 people. In addition, the project site is situated immediately adjacent to the existing and expanding TRCC job generator. Uses at the TRCC currently employ approximately 3,500 people. The TRCC is estimated to generate 14,832 employees at buildout. Therefore, this project would result in a large increase in employment; however, as discussed in Section 4.13, *Population and Housing*, this growth is consistent with planned growth levels and is located at a site that was recognized as suitable for additional growth

in the Kern Council of Governments (Kern COG) Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS). The project also balances new residential uses with job growth to avoid inducing unplanned growth offsite. The project would accordingly accommodate planned growth, and not induce unplanned growth.

With respect to removing barriers to development, such as through providing access to previously undeveloped areas, the project site is bifurcated by I-5, which provides access to the site. The project includes construction of a roadway network and community-serving infrastructure within the Grapevine Specific and Community Plan boundaries, and also includes limited off-site roadway and infrastructure improvements. Roadway improvements would connect to adjacent areas that are already designated for service industrial under the KCGP. The remaining surrounding land use designations and zone classifications are related to agriculture and mineral and petroleum exploration and extraction, and would not be served by project infrastructure. Because the project includes infrastructure which is sized to serve project needs, it does not remove barriers to off-site development.

Although the project accommodates planned population growth at a suitable location, as discussed further in Section 4.13, *Population and Housing*, the net increase in population on the project site remains significant and unavoidable. While population growth would result from the project, the growth would facilitate the provision of needed housing for the TRCC while also providing community amenities, services, and transportation options designed to address the transportation, land use, air quality, and other effects of additional growth in an environmentally superior manner. The project's strategic location adjacent to the existing TRCC and the I-5/Grapevine Road interchange, which has an existing adopted KCGP land use designation Map Code 4.3 (Specific Plan Required), provides a logical basis for accommodating new population growth utilizing sustainable design features.

It is also important to note that the strategic objective of providing needed housing for an existing and expanding employment center is consistent with the forecasted development pattern and land use strategy presented in the Kern COG SCS.

There are no feasible mitigation measures to avoid population growth at the project site while achieving any of the project objectives of developing a sustainable new mixed-use community near employment and retail centers of the TRCC.

### 1.5.5 Irreversible Impacts

Section 15126.2(c) of the CEQA Guidelines defines an irreversible impact as an impact that uses nonrenewable resources during the initial and continued phases of the project. Irreversible impacts can also result from damage caused by environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified. Buildout of the project would commit nonrenewable resources during project construction and ongoing utility services during project operations. During project operations, oil, gas, and other nonrenewable resources would be consumed. 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 KCGP, as a matter of public policy, those commitments have been determined to be acceptable. The KCGP ensures that any irreversible environmental changes associated with those commitments will be minimized.

## 1.6 Alternatives to the Proposed Project

Section 15126.6 of the CEQA Guidelines states that an EIR must address “a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives.” Based on the significant and unavoidable impacts on aesthetics, air quality, biological resources, cultural resources, and noise, along with the proposed project objectives, several alternatives were considered in the DEIR (2016), as summarized below and discussed in detail in Chapter 6, *Alternatives* (Volume 5). This SREIR describes alternatives considered but eliminated from further consideration, including the reasons for elimination, and compares the transportation and traffic, air quality, greenhouse gas, noise, and population and housing impacts of several alternatives retained with those of the Updated 28.7% HBW ICR scenario, and the five Reduced ICR Scenarios.

### 1.6.1 Alternatives Eliminated from Further Consideration

#### Alternate Site Alternative

An alternate site within the San Joaquin Valley portion of Kern County would result in land that is considered Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, much of which is currently under agricultural cultivation. An alternative site within the Mojave Desert portion of Kern County has no available sites that contain pre-existing job centers, and have pre-existing highway, water, and dry utility infrastructure. In addition, there are limited commercial/industrial developments in close proximity to an interstate freeway that are not supported by residential land uses within Kern County. Alternate sites within existing cities within the County were not considered because these cities already have or have planned for a jobs-housing balance between employment and residential uses, and would not achieve a key project objective of developing a sustainable community adjacent to a major employment center with insufficient proximate housing for the workforce.

If an alternate site were identified, development of the project on an alternate site would have similar, if not greater, environmental impacts. The alternate site alternative has been rejected from further consideration because there were no alternative sites that have the attributes required to achieve key project objectives, and because if an alternate site was available it would likely have impacts that are generally similar to, or for some resources greater than, the Grapevine Project.

### 1.6.2 Alternatives Analyzed in this SREIR

Alternatives that would avoid or substantially lessen any of the significant effects of the project and that would feasibly attain most of the basic project objectives are discussed below. Each alternative is discussed with respect to its relationship to the project objectives. Table 1-2, *Comparison of Alternatives*, provides a summary of the alternatives impact analysis. A more detailed alternatives analysis is provided in Chapter 6, *Alternatives*.

<b>Table 1-2. Comparison of Alternatives</b>					
<b>Environmental Resource</b>	<b>Updated 28.7% HBW ICR Scenario</b>	<b>Alternative A</b>	<b>Alternative B</b>	<b>Alternative C</b>	<b>Alternative D</b>
Aesthetics: Degrade visual character or quality	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Aesthetics: New source of light and glare (nighttime impacts)	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Aesthetics: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Similar
Agriculture and Forestry Resources: Convert Prime Farmland	Significant / Unavoidable	Fewer	Similar	Fewer	Similar
Agriculture and Forestry Resources: Convert Agricultural Land to Non-Agricultural Land	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Agriculture and Forestry Resources: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Air Quality: Violate air quality standards	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Air Quality: Cumulative net increase of nonattainment pollutants	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Air Quality: Create objectionable odors	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Air Quality: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Biological Resources: Sensitive species/habitat impacts	Significant / Unavoidable	Fewer	Fewer	Similar	Similar
Biological Resources: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Similar
Greenhouse Gas Emissions: Generate GHG emissions	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Greenhouse Gas Emission: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Noise: Increase ambient noise levels	Significant / Unavoidable	Fewer	Fewer	Similar	Similar
Noise: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Similar
Population and Housing: Induce substantial population growth	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Population and Housing: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Fewer
Transportation and Traffic: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Similar
Utilities and Service Systems: Cumulative effects	Significant / Unavoidable	Fewer	Fewer	Similar	Similar
Meet Project Objectives?	Yes	No	Some	Yes	Yes
Reduce Any Significant and Unavoidable Impacts to No Impact or Less than Significant?	—	Yes, most impacts	No	Yes, Prime Farmland	Yes, Williamson Act Contract Land

### **Alternative A: No Project Alternative**

Under Alternative A, the project would not be constructed and existing conditions at the project site would remain unchanged for the foreseeable future. Existing land uses on the project site would remain, which include undeveloped land in the southern San Joaquin Valley and Tehachapi and San Emigdio Mountains. Current and historic uses of the project site include irrigated agriculture (almond orchards), a commercial area surrounding the I-5/Grapevine Road interchange which includes hospitality facilities, cattle grazing, air quality monitoring facility, two north-south trending transmission corridors and a switching station, and filming uses. The California Aqueduct traverses the project site near the northern boundary; Edmonston Pumping Plant Road bisects the project site from east to west and I-5 bisects the project site from north to south. Grapevine, Live Oak, and Pastoria creeks traverse the site. The project site is immediately south of the TRCC. If the project is not implemented, the project site would remain available for unspecified future use that is consistent with the KCGP. For the purposes of this analysis, it is assumed that buildout of the project site in accordance with the KCGP would eventually occur.

This alternative would reduce significant impacts associated with the project. If the project is not implemented, the project site would remain available for other types of unspecified future use that is consistent with the KCGP, and said development would also result in impacts. This alternative would not achieve the key project objectives, such as providing proximate housing supply for existing and future employees of the TRCC, and creating a sustainable full-service and walkable community defined by convenient access to employment, shopping, parks, schools, and housing; providing sustainable communities.

### **Alternative B: Reduced Project - Phase 1 Development Only**

Alternative B would reduce the extent of the project site in order to reduce the severity, but not avoid, of aesthetics, agriculture, air quality, biological resources, greenhouse gas emissions, noise, population and housing, transportation and traffic, and utilities and service systems impacts. Alternative B would develop only Phase 1 of the Grapevine Specific and Community Plan. Alternative B would use the existing I-5/Wheeler Ridge Road/Laval Road interchange. It would allow for development in Plan Areas 3 and 6a through 6e with construction of an arterial roadway and California Aqueduct crossing east of I-5. Up to approximately 2,200 dwelling units and up to 1,326,000 square feet of commercial land uses would be developed before projected traffic volumes would cause the I-5/Wheeler Ridge Road/Laval Road interchange to operate below LOS D and queuing requirements, the applicable performance standard for the interchange.

This alternative would continue to require approval of amendments to the KCGP map codes, amendments to the Circulation Element of the KCGP, ZCC requests, exclusion from Agricultural Preserve No. 19, adoption of the Grapevine Specific and Community Plan, adoption of the Grapevine Special Plan, and a development agreement.

With implementation of Alternative B, significant impacts would be reduced as compared to the project, but not avoided, for aesthetics, air quality, greenhouse gas emissions, noise, population and housing, transportation and traffic, and utilities and service systems, while impacts associated with agricultural lands would be similar to the project. Visual impacts would be less than those identified for the project; however, they would be anticipated to remain significant and unavoidable. This alternative would fulfill some of the project objectives, but would not provide a sustainable

community of the size and scale needed to create a full range of community uses (e.g., a full-service high school) or achieve a jobs-housing balance relative to TRCC employment uses.

### **Alternative C: Reduced Project - Mixed Use Development Only**

Alternative C would reduce the overall size of the project site in order to reduce the severity of, but not avoid, impacts to aesthetics, agriculture, air quality, biological resources, greenhouse gas emissions, noise, population and housing, transportation and traffic, and utilities and service systems. Alternative C would maintain some employment uses (commercial) but would reduce other employment uses (industrial/warehouse) on the project site by developing Plan Areas 1, 2, 3, 4, and 5a. Alternative C would be identical to the project for Plan Areas 1 through 5a. Alternative C would contain Specific Plan Districts VMU, MU, and EA with Specific Plan Combining District FC. No industrial/warehouse land use would be allowed as part of Specific Plan Districts VMU and MU. Areas identified as Specific Plan District EA would continue to be designated as open space, including the area between northbound and southbound I-5 lanes.

Alternative C would be developed as walkable areas with village centers providing neighborhood-serving retail and office uses, schools, parks, and a mix of housing (with net densities up to 2 and 72 dwelling units per net acre) which would be developed on approximately 5,512 acres; no industrial/warehouse land uses would be developed under this alternative. Alternative C would allow for a cap on development of dwelling units and square feet of commercial land uses based on the reduction in project site acreage.

With implementation of Alternative C, impacts associated with Unique Farmland, Prime Farmland, and Farmland of Statewide Importance would be reduced as compared to the project, while impacts associated with aesthetics, air quality, biological resources, greenhouse gas emissions, noise, population and housing, transportation and traffic, and utilities and service systems would be similar to the project. Visual impacts would be less than those identified for the project in the areas north of the California Aqueduct; however, they would remain significant and unavoidable south of the California Aqueduct. This alternative would fulfill most of the project's objectives.

### **Alternative D: No Williamson Act Land Development**

Alternative D would reduce the size of the project site in order to eliminate development on lands with Williamson Act contracts, including lands for which notices of non-renewal of Williamson Act contracts have been filed. Development under Alternative D would occur within Plan Areas 1, 2, 6b, and 6c and portions of Plan Areas 3, 4, 5a, 6a, and 6d; no development would occur in Plan Areas 5b, 6e, and the remaining portions of Plan Areas 3, 4, 5a, 6a, and 6d. Alternative D would be identical to the project for all developable areas. Alternative D would contain Specific Plan Districts I, VMU, MU, and EA with Specific Plan Combining District FC and GH. Areas identified as Specific Plan District EA would continue to be designated as open space, including the area between northbound and southbound I-5 lanes.

Alternative D would be developed as walkable areas with village centers providing neighborhood-serving retail and office uses, schools, parks, and a mix of housing (with net densities up to 2 and 72 dwelling units per net acre) which would be developed on approximately 4,326. Alternative D would allow for a cap on development of dwelling units and square feet of commercial land uses based on the reduction in project site acreage.

With implementation of Alternative D, impacts associated with Williamson Act contract land would be reduced as compared to the project, while impacts associated with aesthetics, air quality, biological resources, greenhouse gas emissions, noise, population and housing, transportation and traffic, and utilities and services systems would be similar or only slightly less when compared to the project. This alternative would fulfill most of the project's objectives.

### 1.6.3 Environmentally Superior Alternative

An EIR must identify the environmentally superior alternative to the project. Alternative A: the No Project Alternative (under both Alternative A-1: No New Community Development Scenario and Alternative A-2: No General Plan Amendment Community Development Scenario) would be environmentally superior to the project on the basis of the minimization or avoidance of physical environmental impacts. However, Section 15126.6(e)(2) of the CEQA Guidelines states that if the no project alternative is found to be environmentally superior, "the EIR shall also identify an environmentally superior alternative among the other alternatives." Although Alternative A is the environmentally superior alternative, it is not capable of meeting most of the basic objectives of the project. Due to the reduced footprint size, and the ability to reduce, but not avoid, impacts to aesthetics, air quality, biological resources, greenhouse gas emissions, population and housing, transportation and traffic, and utilities and service systems, Alternative B, Reduced Project – Phase 1 Development Only, is considered the environmentally superior alternative. This is because it has the smallest acreage amount of physical land disturbance, and introduces the smallest number of new people and jobs to the project site. Alternative B thus reduces, but does not eliminate, aesthetics, air quality, greenhouse gas emissions, noise, population and housing, transportation and housing, and utilities and service systems impacts as compared to the project. Accordingly, it 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 Draft EIR (2016) scoping period. Public comments received during scoping are provided in Volume 6, Appendix A and summarized in Section 2.4 of Chapter 2, *Introduction* of Volume 5. In summary, the following issues were identified during scoping and are addressed in the appropriate sections of Chapter 4, *Environmental Analysis* of Volume 5:

- Biological Resources
  - Degradation of habitat
  - Disturbance and subsequent displacement from habitat
  - Disruption of ecological links/migration corridors
- Cultural Resources
  - Protection of cultural resources
- Hydrology and Water Quality
  - Water quality concerns
- Population and Housing
  - Increased population (growth inducing)
- Transportation and Traffic
  - Increased traffic volumes

- Insufficient ramps/roadways to accommodate increased traffic
- Project trip generation
- Provisions related to crossing the California Aqueduct
- Utilities and Service Systems
  - Extension of natural gas service
  - Electric generation, transmission/power/distribution line facilities and substations
  - Water supply

Areas of controversy were identified through written agency and public comments received during the SREIR scoping period. Public comments received during scoping are provided in Volume 2, Appendix A and summarized in Section 2.4 of Chapter 2, *Introduction*. In summary, the following issues were identified during scoping and are addressed in the appropriate sections of Chapter 4, *Supplemental Environmental Analysis*:

- Transportation and Traffic
  - Evaluate reduced ICR conditions

## 1.8 Issues to Be Resolved

Section 15123(b) (3) of the CEQA Guidelines requires that an EIR contain issues to be resolved, which includes the choices among alternatives and whether or how to mitigate significant impacts. The major issues to be resolved regarding the project include decisions by the lead agency as to whether or not:

- The Draft SREIR adequately describes the environmental impacts of the project;
- The recommended mitigation measures should be adopted or modified; or,
- Additional mitigation measures need to be applied.

## 1.9 Summary of Environmental Impacts and Mitigation

The following is a summary of the environmental impacts of the project, mitigation measures, and unavoidable significant impacts identified and analyzed in Chapter 4 of this SREIR. Refer to the appropriate SREIR section for additional mitigation.

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
<b>Aesthetics</b>			
Impact 4.1-1: Have a Substantial Adverse Effect On a Scenic Vista	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.1-2: Substantially Damage Scenic Resources, Including, but Not Limited to, Trees, Rock Outcroppings, and Historic Buildings within a State Scenic Highway	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.1-3: Substantially Degrade the Existing Visual Character or Quality of the Site and Its Surroundings	Significant	<p>MM 4.1-1 The project proponent shall include a 50-foot landscaped buffer in all tentative tract maps and site plans filed for lands adjacent to the project's boundary with the Interstate 5 (I-5) highway corridor.</p> <p>MM 4.1-2 As part of its application for a tentative tract map or site plan for land immediately adjacent to the Interstate 5 (I-5) highway corridor, the project proponent shall submit to the Kern County Planning and Natural Resources Department for its review and approval a landscape design and planting plan for the 50-foot landscaped buffer along the I-5 corridor. The landscaping shall be consistent with the visual character experienced by travelers along the I-5, including but not limited to, such features as orchards, vineyards, and native wildflower fields. Site plan and building permit approvals shall require that buffer area landscaping between I-5 and the development area shall be installed no later than completion of landscaping improvements for development located adjacent to the buffer area.</p> <p>MM 4.1-3 The following aesthetic features shall be required in site plans and building permits for commercial buildings and multi-family residential buildings located within 1,000 feet of the Interstate 5 (I-5) corridor:</p> <ul style="list-style-type: none"> <li>a. Rooftop screening features shall be installed to create a visual screen for rooftop mechanical equipment.</li> <li>b. Reflective metal exteriors shall not be used as exterior architectural elements in buildings immediately adjacent to I-5.</li> </ul>	Significant and unavoidable
Impact 4.1-4: Create a New Source of Substantial Light or Glare Which Would Adversely Affect Day or Nighttime Views in the Area	Significant	<p>Implement Mitigation Measures MM 4.1-1 through MM 4.1-3, as described above.</p> <p>MM 4.1-4 Project site plans and building permits shall comply with the County's Dark Sky ordinance (Section 19.81 of the <i>Kern County Zoning Ordinance</i>) to reduce unnecessary night lighting and to minimize lighting impacts on surrounding properties.</p>	Significant and unavoidable

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Impact 4.1-5: Contribute to Cumulative Aesthetic Impacts	Significant	Implement Mitigation Measures MM 4.1-1 through MM 4.1-4, as described above.	Significant and unavoidable
<b>Agricultural Resources</b>			
Impact 4.2-1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to Non-Agricultural Use	Significant	<p>MM 4.2-1: Prior to issuance of a grading or building permit for one of the plan areas identified in the Grapevine Specific and Community Plan, the project proponent shall provide written evidence of completion of one or more of the following measures to mitigate the loss of agricultural lands identified within that particular plan area at a ratio of 1:1 for net acreage before conversion (the net acreage calculation shall exclude existing roads and areas already developed with structures). The following approximate acres shall be mitigated for each plan area:</p> <ul style="list-style-type: none"> <li>• Plan Area 6a – approximately 159 acres</li> <li>• Plan Area 6b – approximately 323 acres</li> </ul> <p>A plot plan shall be submitted to substantiate the net acreage calculation along with written evidence of compliance. Compliance shall be achieved by any one, or a combination, of the options listed below:</p> <ol style="list-style-type: none"> <li>1. Recordation of conservation easements on Tejon Ranchcorp (TRC) lands that are not designated for development under the Tejon Ranch Land Use and Conservation Agreement (Ranchwide Agreement) within the San Joaquin Valley, and for which comparable agricultural uses are authorized under the Kern County General Plan and Zoning Code and the Ranchwide Agreement.</li> <li>2. Funding and/or purchasing of agricultural conversation easements or deed restrictions within Kern County and on lands not owned by TRC (that will be managed and maintained by an appropriate entity).</li> <li>3. Contribution of agricultural land or equivalent funding to an organization that provides for the preservation of farmland in California.</li> <li>4. Purchase of credits from an established agricultural farmland mitigation bank or in-lieu fee program acceptable to Kern County.</li> <li>5. Participation in any agricultural land mitigation program adopted by Kern County that provides equal or more effective mitigation than the measures listed above.</li> </ol> <p>Mitigation lands shall meet the definition of Prime Farmland, Farmland of Statewide Importance, and/or Unique Farmland, and be of similar agricultural quality or higher, as established by the California Department of Conservation. Completion of the selected measure or, with the Kern County Planning and Natural Resources Director's approval, a combination of measures can occur on qualifying land within the San Joaquin Valley (San Joaquin, Stanislaus, Merced, Fresno, Madera,</p>	Significant and unavoidable

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		Kings, Tulare, or Kern County) or outside the San Joaquin Valley with written evidence that the same or equivalent crops can be produced on the mitigation land.	
Impact 4.2-2: Conflict with Existing Agricultural Zoning or Williamson Act Contracts	Potentially significant	MM 4.2-2: The Grapevine Specific and Community Plan and zone change approval for project site lands currently enrolled in the Williamson Act program under existing contracts, and the removal of such lands from Agricultural Preserve No. 19, are held in suspense, until such time as the existing Williamson Act contracts have expired or been terminated. Upon expiration or termination of the Williamson Act contracts, the adopted Grapevine Specific and Community Plan land use designations and zoning, and the exclusion of such lands from Agricultural Preserve No. 19, shall immediately become effective. Any parcel and subdivision maps created for finance and conveyance purposes shall, shall clearly show those areas remaining under Williamson Act contracts as of the project approval date and the anticipated expiration date of the contracts, and shall prohibit development until such time as the Williamson Act contract expires or has been terminated. The project proponent shall provide evidence that such lands are no longer under Williamson Act contracts shall be included as a condition of approval for a final subdivision map or site plan.	Less than significant
Impact 4.2-3: Involve Other Changes in the Existing Environment which, because of Their Location or Nature, Could Result in Conversion of Farmland to Non-Agricultural Use or Conversion of Forest Land to Non-Forest Land	Significant	Implement Mitigation Measure MM 4.2-1 and MM 4.2-2, as described above. MM 4.2-3: The project proponent will include a note on all tentative tract maps and property deeds for residential lots located within 100 feet of irrigated farmlands or grazed lands stating "If the property in which you are taking an interest is located near agricultural lands or operations, or included within an area zoned for agricultural purposes, you may be subject to inconveniences or discomfort arising from such operations. Such inconveniences may include, but may not necessarily be limited to: noise, odors, fumes, dust, smoke, insects, operation of machinery (including aircraft) during any 24-hour period, storage and disposal of manure, and the application by spraying or otherwise of chemical fertilizers, soil amendments, herbicides and pesticides. One or more of the inconveniences described may occur as a result of any agricultural operation which is in conformance with existing laws and regulations and accepted customs and standards. If you live near an agricultural area, you should be prepared to accept such inconveniences and discomfort as a normal and necessary aspect of living in a county with a strong rural character and an active agricultural sector." MM 4.2-4: The project proponent will include a note on all tentative tract maps stating that land designated for the construction of Kindergarten through 12 <sup>th</sup> grade school shall not be sited within 100 feet of any commercial agricultural use that employ aerial pesticide application, with the exception of community or school gardens that may be located on or adjacent to a school, or other farming operations that do not involve aerial pesticide applications. MM 4.2-5 Sellers of future residential or commercial parcels located within 100 feet of irrigated farmlands or grazing lands shall provide buyers with a disclosure of adjacent agricultural uses, and of the value and benefits of such uses including environmental, fire safety, food security, and other values and	Significant and unavoidable

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		benefits. The disclosure shall include the following statement: "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 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." The buyers of future residential parcels shall be provided with information regarding practical measures that can be voluntarily undertaken if desired to minimize impacts of adjacent agricultural uses (e.g., closing windows to minimize potential odor or dust occurrences).	
Impact 4.2-4: Result in the Cancellation of an Open Space Contract Made Pursuant to the California Land Conservation Act of 1965 or Farmland Security Zone Contract for Any Parcel of 100 or More Acres	Less than significant	Implement Mitigation Measures MM 4.2-1 through MM 4.2-2, as described above.	Less than significant
Impact 4.2-5: Contribute to Cumulative Agricultural and Forest Resource Impacts	Significant	Implement Mitigation Measures MM 4.2-1 through MM 4.2-5, as described above.	Significant and unavoidable
<b>Air Quality</b>			
Impact 4.3-1: The Project would Conflict with or Obstruct Implementation of the Applicable Air Quality Plan	Potentially significant	<p>MM 4.3-1 The project is required to comply with applicable state and federal air pollution control laws and regulations, and with applicable rules and regulations of the San Joaquin Valley Air Pollution Control District (SJVAPCD) during construction and operations.</p> <p>MM 4.3-2 Prior to issuance of grading or building permit, the project proponent shall submit a Fugitive Dust Control Plan to San Joaquin Valley Air Pollution Control District (SJVAPCD) for review and approval. The Fugitive Dust Control Plan shall reduce emissions, during construction of particulate matter that is 10 microns or less and 2.5 microns or less in diameter (PM<sub>10</sub> and PM<sub>2.5</sub>). The Fugitive Dust Control Plan shall include:</p> <ul style="list-style-type: none"> <li>Name(s), address(es), and phone number(s) of person(s) responsible for the preparation, submission and implementation of the plan.</li> <li>Description and location of operation(s).</li> <li>Listing of all fugitive dust emissions sources included in the operation.</li> </ul> <p>The following dust control measures shall be implemented:</p>	Less than significant

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>a) All on-site unpaved roads shall be effectively stabilized use 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 included loss of vegetation.</li> <li>b) All material excavated or graded will be sufficiently 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 percent opacity or covered with temporary coverings.</li> <li>c) 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. Construction activities may continue if dust suppression measures are used to minimize visible dust plumes.</li> <li>d) 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.</li> <li>e) All hauling materials should be moist while being loaded into dump trucks.</li> <li>f) All haul trucks hauling soil, sand and other loos materials on public roads shall be covered (e.g., with tarps or other enclosures that would reduce fugitive dust emissions).</li> <li>g) Soil loads should be kept below six inches or the freeboard of the truck.</li> <li>h) Drop heights should be minimized when loaders dump soil into trucks.</li> <li>i) Gate seals should be tight on dump trucks.</li> <li>j) Traffic speeds on unpaved roads shall be limited to a maximum of 25 miles per hour.</li> <li>k) All grading activities shall be suspended when visible dust emissions exceed 20 percent.</li> <li>l) Other fugitive dust control measures as necessary to comply with San Joaquin valley Air Pollution Control District Rules and Regulations.</li> <li>m) Disturbed areas should be minimized.</li> </ul> <p>MM 4.3-3 For off-road equipment with engines rated at 75 horsepower or greater, no construction equipment will be used that is less than Tier 2 at the commencement of construction (2016), less than Tier 3 starting in construction year 5 (2020), less than Tier 4 Interim starting in construction year 10 (2025), and Tier 4 Final starting in construction year 15 (2030). An exemption from these requirements may be granted by Kern County in the event that the project proponent documents that (1) equipment with the required tier is not reasonably available (e.g., reasonability factors to be considered include</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
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		<p>those available within Kern County within the scheduled construction period), and (2) corresponding reductions in criteria pollutant emissions are achieved from other construction equipment.</p> <p>MM 4.3-4 <b>Developer Mitigation Contract.</b> The project proponent shall enter into a Developer Mitigation Contract (DMC) with the San Joaquin Valley Air Pollution Control District (SJVAPCD) to reduce emissions of reactive organic gases (ROGs), oxides of nitrogen (NOx), and particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM10) to achieve emission reductions for projected construction and operational related emissions of ROG, NOx and PM10 (inclusive of particulate matter with an aerodynamic diameter less than or equal to 2.5 microns [PM2.5]). The DMC shall require full offsets of these pollutants, for construction and operational emissions, except to the extent that offsets equal to or greater than these full offsets are separately required under the District's stationary source permit requirements. The project proponent shall report annually through the Mitigation Monitoring and Reporting program on compliance with the DMC. Additionally, no later than prior to recordation of a final tentative tract map, prior to approval of a grading permit for commercial/industrial site plan, the project proponent shall submit to the Kern County Planning and Natural Resources Department documentation confirming compliance with the DMC. The document entitled the "Voluntary Emission Reduction Agreement" that was executed by the SJV APCD and project proponent in February 2016, and was included as Exhibit H to Appendix E.1 of the EIR, serves as the DMC for this project.</p> <p>The Internalization Rate Report required under Mitigation Measure 4.16-9, below, shall include as an appendix an updated quantification of ROGs, NOx, and PM10 for prior and estimated future project construction and operational emissions of these criteria pollutants, to demonstrate whether past and estimated future project criteria pollutant emissions remain below the quantified emissions included in the DMC. If the Internalization Rate Reports required under MM 4.16-9 estimates quantities of future project emissions of ROGs, NOx, or PM10 in excess of the quantities of these emissions identified in the DMC, then the project proponent shall either:</p> <ul style="list-style-type: none"> <li>(a) propose, for review and approval by the County and SJVAPCD, implementation of trip reduction measures or other measures to avoid exceeding the criteria emission quantities identified in the DMC;</li> <li>(b) enter into a new or amended DMC with SJVAPCD to fully offset the exceedance of the criteria emission quantities identified in the DMC; or</li> <li>(c) a combination of (a) and (b) herein.</li> </ul> <p>MM 4.3-5 <b>Energy Plan.</b> Concurrent with the submittal of the first application for a tentative tract map, parcel map (excluding financing map), or commercial site plan review, the project proponent shall submit to the Kern County Planning and Natural Resources Department an Energy Plan documenting compliance with all applicable energy conservation requirements of applicable Title 24 standards.</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		The Energy Plan shall also confirm that a menu of energy efficiency design elements, along with other design considerations and options, has been made available by the project proponent to builders, developers, and property owners as part of the internal design review process. Each developer, builder, or property owner shall incorporate the design elements required to comply with then-applicable Title 24 requirements and select from the menu or implement other available technologies as may be needed to reduce energy consumption 15% below 2016 Title 24 requirements. Implementation of the energy efficiency requirements in the approved Energy Plan shall be included as conditions of approval for any commercial/industrial site plan, final subdivision map, or parcel map (except financing map).	
Impact 4.3-2: The Project would Violate Any Air Quality Standards as Adopted in (c)i or (c)ii, or as established by EPA or Air District or Contribute Substantially to an Existing or Projected Air Quality Violation	Significant	Implement Mitigation Measures MM 4.3-1 through MM 4.3-5, as described above.	Significant and unavoidable for ROG and NO <sub>x</sub> Construction; CO Operation
Impact 4.3-3: Result in a Cumulatively Considerable Net Increase of Any Criteria Pollutant for Which the Region is Nonattainment for Federal or State Standards	Potentially Significant	Implement Mitigation Measures MM 4.3-1 through MM 4.3-5, as described above.	Significant and unavoidable
Impact 4.3-4: The Project Would Expose Sensitive Receptors to Substantial Pollutant Concentrations	Potentially significant	MM 4.3-6 <b>Valley Fever.</b> Prior to ground disturbance activities, the project proponent shall implement the following Valley Fever Provisions 1) Provide evidence to the Kern County Planning and Natural Resources Department that the project operator and/or construction manager has developed a "Valley Fever Training Handout", training, and schedule of sessions for education to be provided to all construction personnel. All evidence of the training session materials, handout(s) and schedule shall be submitted to the Kern County Planning and Natural Resources Department within 24 hours of the first training session. Multiple training sessions may be conducted if different work crews will come to the site for different stages of construction; however, all construction personnel shall be provided training prior to beginning work. The evidence submitted to the Kern County Planning and	Less than significant

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>Natural Resources Department regarding the “Valley Fever Training Handout” and Session(s) shall include the following:</p> <ol style="list-style-type: none"> <li>a. A sign-in sheet (to include the printed employee names, signature, and date) for all employees who attended the training session.</li> <li>b. Distribution of a written flier or brochure that includes educational information regarding the health effects of exposure to criteria pollutant emissions and Valley Fever.</li> <li>c. Training on methods that may help prevent Valley Fever infection.</li> <li>d. A demonstration to employees on how to use personal protective equipment, such as respiratory equipment (masks), to reduce exposure to pollutants and facilitate recognition of symptoms and earlier treatment of Valley Fever. Where respirators are required, the equipment shall be readily available and shall be provided to employees for use during work. Proof that the demonstration is included in the training shall be submitted to the county. This proof can be via printed training materials/agenda, DVD, digital media files, or photographs.</li> </ol> <p>2) The project proponent also shall consult with the County Health Services Department to develop a Valley Fever Dust Management Plan that addresses the potential presence of the <i>Coccidioides</i> spore and mitigates for the potential for <i>Coccidioidomycosis</i> (Valley Fever). Prior to issuance of permits, the project operator shall submit the Plan to the Kern County Public Health Department for review and approval. The Plan shall include a program to evaluate the potential for exposure to Valley Fever from construction activities and to identify appropriate safety procedures that shall be implemented, as needed, to minimize personnel and public exposure to potential <i>Coccidioides</i> spores. Measures in the Plan shall include the following:</p> <ol style="list-style-type: none"> <li>a. Provide High-Efficiency Particulate Air (HEPA) filters for heavy equipment equipped with factory enclosed cabs capable of accepting the filters. Require contractors utilizing applicable heavy equipment to furnish proof of worker training on proper use of applicable heavy equipment cabs, such as turning on air conditioning prior to using the equipment.</li> <li>b. Provide communication methods, such as two-way radios, for use in enclosed cabs.</li> <li>c. Require National Institute for Occupational Safety and Health (NIOSH)-approved half-face respirators equipped with minimum N-95 protection factor for use during worker collocation with surface disturbance activities, as required per the hazard assessment process.</li> <li>d. Cause employees to be medically evaluated, fit-tested, and properly trained on the use of the respirators, and implement a full respiratory protection program in accordance with the applicable California Occupational Safety and Health Administration Respiratory Protection Standard (8 CCR 5144).</li> <li>e. Provide separate, clean eating areas with hand-washing facilities.</li> </ol>	

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		<ul style="list-style-type: none"> <li>f. Install equipment inspection stations at each construction equipment access/egress point. Examine construction vehicles and equipment for excess soil material and clean, as necessary, before equipment is moved off-site.</li> <li>g. Train workers to recognize the symptoms of Valley Fever, and to promptly report suspected symptoms of work-related Valley Fever to a supervisor.</li> <li>h. Work with a medical professional to develop a protocol to medically evaluate employees who develop symptoms of Valley Fever.</li> <li>i. Work with a medical professional, in consultation with the County Health Services Department, to develop an educational handout for on-site workers and surrounding residents within three miles of the project site, and include the following information on Valley Fever: what are the potential sources/ causes, what are the common symptoms, what are the options or remedies available should someone be experiencing these symptoms, and where testing for exposure is available. Prior to construction permit issuance, this handout shall have been created by the project operator and reviewed by the project operator and reviewed by the County. No less than 30 days prior to any work commencing, this handout shall be mailed to all existing residences within three miles of the project boundaries.</li> <li>j. When possible, position workers upwind or crosswind when digging a trench or performing other soil-disturbing tasks.</li> <li>k. Prohibit smoking at the worksite outside of designated smoking areas; designated smoking areas will be equipped with handwashing facilities.</li> <li>l. Post warnings on-site and consider limiting access to visitors, especially those without adequate training and respiratory protection.</li> <li>m. Audit and enforce compliance with relevant California Occupational Safety and Health Administration health and safety standards on the jobsite.</li> </ul> <p>MM 4.3-7 :</p> <ul style="list-style-type: none"> <li>A. Sensitive Uses and High Volume Internal Roadways. Prior to County approval of a tentative tract map that includes residential units or other sensitive uses, the applicant shall submit to the County and San Joaquin Valley Air Pollution Control District (SJVAPCD) a health risk assessment (HRA). The HRA shall be completed in accordance with the methodological requirements of the SJVAPCD, and shall include a cumulative assessment if or as directed by SJVAPCD. The HRA shall consider TAC emissions from mobile sources from I-5 within the prescribed distances of 3,100 feet east of Interstate-5 or within 4,500 feet west of Interstate-5, or within 500 feet of the project's higher volume Freeway Connection and Major Arterial/Collector, which are the only internal project roadway street types that have the potential</li> </ul>	

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		<p>for exceeding 50,000 trips per day at project buildout. If the HRA identifies any sensitive receptor exposure that equals or exceeds 20 in 1 million for cancer risk or 1.0 for non-cancer indices (or future more stringent thresholds as may be adopted by the District and implemented by the County for use on projects subject to the County's lead agency authority under the California Environmental Quality Act) (District TAC Thresholds), the applicant shall submit a Toxic Air Contaminant (TAC) Emission Reduction Plan to the SJVAPCD for review and concurrence. Following SJVAPCD review and concurrence, a copy of the TAC Emission Reduction Plan, confirming that no sensitive receptors on the project site will be exposed to TAC risks in excess of District TAC Thresholds, shall be provided to the Kern County Planning and Natural Resources Department, prior to County approval of the tentative tract map. In the TAC Emission Reduction Plan, TAC exposure measures shall be implemented to assure that no sensitive receptors are exposed to TAC-related health impacts that equal or exceed the SJVAPCD thresholds. TAC exposure reduction measures include, but are not limited to, setbacks; vegetative barriers; heating, ventilation, and air conditioning (HVAC) system filtration technologies; etc., and shall be required as a condition of approval for the tentative tract map, and/or required as a condition prior to issuance of a building permit approval for future sensitive use(s) included in the tentative tract map.</p> <p>B. Sensitive Uses and Future Employment Uses. Prior to County approval of a commercial site plan for a future commercial, industrial, or retail use, the applicant shall submit to the County and San Joaquin Valley Air Pollution Control District (SJVAPCD) a description of the types, quantities and uses of toxic air contaminants (TACs) from operational activities including but not limited to trucking and processing or light manufacturing activities, which shall include the distance between the site plan boundary and the nearest sensitive receptor. TAC usage associated with routine office and building maintenance operations does not need to be quantified. Unless otherwise directed by the District staff based on a staff determination that the TAC quantities associated with the commercial site plan do not present a potential TAC exposure risk to any project sensitive uses, the applicant shall submit a TAC health risk assessment (HRA) to the District for its review and concurrence. The HRA shall be completed in accordance with the methodological requirements of the SJVAPCD, and shall include a cumulative assessment of other project TAC emission sources if or as directed by SJVAPCD. If the HRA identifies any sensitive receptor exposure that equals or exceeds 20 in 1 million for cancer risk or 1.0 for noncancer indices (or future more stringent thresholds as may be adopted by the District and approved by the County for use on projects subject to the County's lead agency authority under the California Environmental Quality Act) (District TAC Thresholds), the applicant shall submit a Toxic Air Contaminant (TAC) Emission Reduction Plan to the SJVAPCD</p>	

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<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>for review and concurrence. Following SJVAPCD review and concurrence, a copy of the TAC Emission Reduction Plan, confirming that no sensitive receptor on the project site will be exposed to TAC risks in excess of District TAC Thresholds, shall be provided to the Kern County Planning and Natural Resources Department, prior to County approval of the commercial site plan. The TAC Emission Reduction Plan may include measures to be applied to future buildings within the commercial site plan area (e.g., installation of filtration devices, storage limitations, or other operational measures, as well as specifications for truck routes, loading dock configuration(s) and/or location(s), loading procedures and other mobile source TAC emission measures) to assure that no sensitive receptors are exposed to TAC-related health impacts that equal or exceed the SJVAPCD thresholds from the commercial, industrial or retail use(s) included in the commercial site plan.</p> <p>C. Meteorological Data for Dispersion Modeling. All dispersion modeling in support of the health risk assessments (HRA) and ambient air quality analyses (AAQA) specified in MM-4.3-7A and MM-4.3-7B shall use meteorological data collected on the Grapevine project site. The meteorological data shall consist of one year of data collected onsite, and shall be reviewed by the San Joaquin Valley Air Pollution Control District (SJVAPCD) for use in U.S. Environmental Protection Agency approved air quality dispersion models prior to use in a health risk assessment (HRA).</p>	
Impact 4.3-5: The Project Would Cause the Creation of Objectionable Odors, Affecting a Substantial Number of People	Potentially significant	<p>MM 4.3-8 As part of the submittal packet for any proposed Special Use Permit with the potential to generate noxious odors. The project proponent shall be required to prepare an Odor Minimization and Complaint Management Plan. The Odor Minimization and Complaint Management Plan shall include provisions necessary to reduce odors generated from the proposed use. At minimum, the Odor Minimization and Complaint Management Plan shall include the following:</p> <ol style="list-style-type: none"> <li>a. Name and telephone number of contact person(s) at the facility responsible for logging in and responding to odor complaints.</li> <li>b. Policy and procedure describing the actions to be taken when an odor complaint is received, including the training provided to staff on how to respond.</li> <li>c. Description of potential odor sources at the facility.</li> <li>d. Description of potential methods for reducing odors, including minimizing idling of delivery and service trucks and buses, process changes, facility modifications, and/or feasible add-on air pollution control equipment, including a description of the specific measures to be implemented at the building design stage, the equipment installation and maintenance stage, and the operations management stage, to avoid or minimize adverse odor impacts.</li> <li>e. Contingency measures to curtail emissions in the event of a public nuisance odor complaint.</li> </ol>	Significant and unavoidable

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Impact 4.3-6: 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 National or State Ambient Air Quality Standard	Significant	<p>Implement Mitigation Measures MM 4.3-1 through MM 4.3-8, as described above.</p> <p>MM 4.3-9: <b>Internet Infrastructure and Telecommuting.</b> Each application for a tentative tract map, parcel map (excluding financing map), and commercial site plan review shall include telecommunications infrastructure to provide broadband service (internet) for all occupied structures, and to provide a community intranet with access for homeowners associations, interest groups, and residents, employers and employees; the intranet shall include information regarding scheduled local events , schools, library, carpool and transit services; and other on-site entertainment and amenities.</p> <p>An application for a building permit shall include broadband internet infrastructure to encourage telecommuting and working from home and in satellite offices. The intranet shall also provide education about greenhouse gas (GHG) emissions; GHG reduction opportunities; energy and water conservation opportunities; financial incentives (e.g., rebates and low-interest loans) for energy-efficiency improvements; and energy-efficiency technology systems, including those suitable for large commercial and industrial users.</p> <p>MM 4.3-10: <b>Mobility Plan.</b> Concurrent with the initial application for a tentative tract map, parcel map (excluding financing map), or commercial site plan review, the project proponent shall submit a Mobility Plan, which describes the system of sidewalks, greenway trails, community trails, a dedicated transit easement, and two transit hubs to serve as alternative means of transportation on the project site. The Mobility Plan shall also require, consistent with MM 4.16-2 and the requirement to form a Transportation Management Association (TMA), the ongoing operation of the TMA to implement ongoing transportation improvements and programs. Implementation of the approved Mobility Plan shall be required for each subsequent tentative tract map, parcel map (excluding financing map), and commercial site plan review.</p> <p>The Mobility Plan shall:</p> <ul style="list-style-type: none"> <li>• Through the TMA, provide future residents, visitors, and employees with information on multiple modes of transit/non-single occupancy vehicle (non-SOV) accessibility for internal and external trips.</li> <li>• Through the TMA, provide options to reduce vehicle trips and emissions by linking effective travel demand management with transportation systems and parking policies.</li> <li>• Through the TMA, provide residents and employees on the project site with multiple modes of transportation options (e.g., walk, bike, public transit, private auto, car share, bike share).</li> <li>• Provide for 50% on average of residential units (single family and multi-family) to be located within 0.5 miles of a village center that includes retail and service uses.</li> <li>• Provide parks within a 10-minute walk (0.5 miles) of 80% of all residential units.</li> </ul>	Significant and unavoidable for ROG

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>• Provide a transit route easement no less than 25 feet wide to provide for a dedicated bus lane and bus pull-outs from the dedicated transit centers to the primary village mixed use center areas on the east and west sides of Interstate (I) 5.</li> <li>• Through the TMA, work with automotive dealers to help promote electric, compressed natural gas (CNG), hybrid electric vehicles, and vehicles using future zero or low emission technologies approved for use in California by the California Air Resources Board (CARB-approved zero and low emission vehicles)</li> <li>• Through the TMA, engage in outreach and education for agencies and businesses located on the site, and project residents, about CARB-approved zero and low emission vehicles, which help attain that would help achieve California's air quality, greenhouse gas, and climate change mandates, and which could potentially meet the performance and affordability needs of project employers, employees and residents.</li> <li>• Require TMA implementation of a combination of measures to provide adequate temporary bike or personal electric vehicle (e.g., scooter) parking during large public events conducted at civic center, large amphitheaters, fairgrounds or athletic stadium uses that may be permitted, temporarily permitted, or conditionally permitted on the project site pursuant to the Specific Plan. Such measures may include, but are not limited to, providing valet bike parking, temporarily anchored bike parking racks, or a secured temporary bike parking enclosure.</li> </ul> <p>If approved by the California Department of Transportation (Caltrans) for use on State Roads and the County, and where maintenance and durability costs are comparable to traditional materials, the project proponent shall use "cool pavement materials to reduce heat island effects. The location of proposed cool pavement materials shall be specified in applications for tentative tract maps, parcel maps (excluding financing maps), and commercial site plan reviews. Installation of approved cool building materials shall be required as conditions of project approvals for such tentative tract maps, parcel maps (excluding financing maps), and commercial site plan reviews.</p> <p>MM 4.3-11: <b>Transportation Demand Management (TDM).</b> Each component of the Mobility Plan shall incorporate TDM features to reduce dependence on the automobile and provide for a more efficient use of transportation resources among project occupants, thereby reduce pollutant emissions. Related to this is the requirements of MM 4.16-2, which requires the creation and ongoing operation of a Transportation Management Association (TMA) to coordinate and support the operation of</p>	

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		<p>ongoing transportation programs, including but not limited to transit and on-demand services. The following are key TDM elements that are inherent in the overall Mobility Plan:</p> <ul style="list-style-type: none"> <li>• Sidewalks, greenway trails, and community trails that link residential, schools, shopping, and employment areas</li> <li>• Small- to medium-sized streets and blocks that allow for shorter walking distances to retail, parks, schools, and other destinations</li> <li>• Pedestrian environments incorporated with public streets</li> <li>• Transit route easement connecting the residential and commerce areas</li> <li>• Parking behind buildings to encourage walking in retail areas along street frontage</li> <li>• Provide bus shelters</li> </ul> <p>MM 4.3-12: <b>Locker/Shower Facilities.</b> Applications for commercial site plan review and building permits for non-residential buildings shall include lockers and showers to encourage active transportation such as biking and walking to and at work in lieu of motorized vehicle. Proof of compliance shall be provided to the County prior to the issuance of occupancy permits.</p> <p>For buildings with over 10 tenant-occupants, changing/shower facilities shall be provided as follows: for 11 to 50 tenant-occupants, one shower and two 2-tier lockers; for 51 to 100 tenant-occupants, one shower and three 2-tier lockers; for 101 to 200 tenant-occupants, two showers and four 2-tier lockers; and for over 200 tenant-occupants, two additional showers for each 200 additional tenant-occupants and one 2-tier locker for each 50 additional tenant-occupants.</p>	
		<p><b>MM 4.3-13: Preferential Parking and Electric Vehicle Charging for Nonresidential Buildings.</b></p> <p>(a) Applications for commercial site plan review and building permits for non-residential buildings shall include preferential parking for electric cars, low emission vehicles, and carpools/vanpools to encourage use of such vehicles. Proof of compliance shall be provided to the County prior to the issuance of occupancy permits. Preferential parking for such vehicles shall include two spaces for non-residential lots containing 10 to 25 spaces; four spaces for 26 to 50 space lots; six spaces for 51 to 75 space lots; nine spaces for 76 to 100 space lots; eleven spaces for 101 to 150 space lots; 18 spaces for 151 to 200 space lots; and at least 10% of total spaces for lots with more than 200 spaces.</p> <p>(b) (1) Applications for commercial site plan review and building permits for non-residential buildings shall include Electric Vehicle (EV) Charging Spaces (EV space). Electrical infrastructure shall be installed to support future installation of Electric Vehicle Supply Equipment (EVSE) chargers, at each nonresidential building with 10 or more parking spaces, in the following ratios:</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation					
Impact	Level of Significance before Mitigation	Mitigation Measure(s)		Level of Significance after Mitigation	
		Total Number of Actual Parking Spaces	Tier 1 Number of Required EV Spaces		
		0-9	0		
		10-25	2		
		26-50	3		
		51-75	5		
		76-100	7		
		101-150	10		
		151-200	14		
		>200	8% of total spaces rounded up to nearest whole number		
		<p>(2) For parking lots requiring multiple EV spaces under subsection (b), the application for commercial site plan review and building permit shall include the location(s) and type of EVSE, raceway method(s), wiring schematics and electrical calculations to verify that the electrical system has sufficient capacity to charge simultaneously all the electric vehicles (EV) at all designated EV spaces at their full rated amperage.</p> <p>(3) Proof of compliance with subsections (1) and (2) shall be provided to the County prior to the issuance of occupancy permits.</p> <p>(4) Changes to EVSE parking shall be allowed to the extent allowed under state law, and the duration of vehicular occupancy of EV spaces may be restricted as authorized by state law to allow charging of multiple vehicles each day. Demand for EV space facilities shall be monitored biennially by the Transportation Management Association (TMA), and additional EV parking spaces shall be made available at lots where demand exceeds supply. The TMA biennial survey shall also consider future transportation technology and practices, including for example changes in vehicular electric charging technology, other FVF changes, or other transportation practices and services changes (e.g., with lower automobile ownership rates leading to reduced parking demand and/or reduced private ownership of vehicles requiring daily electric charging).</p>			

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>MM 4.3-14: <b>Multi-Family Residential and Park/Trail Parking.</b> Applications for a tentative tract map, parcel map (excluding financing map), or commercial site plan review, that include parking structures, parking lots with 20 or more parking spaces that serve uses other than residential or nonresidential buildings (e.g., trailhead, park), and parking structures and parking lots that serve multifamily residential buildings with 15 or more multifamily units, shall include the following:</p> <ul style="list-style-type: none"> <li>• A minimum of 5% of preferentially located parking spaces shall be reserved for electric vehicles.</li> <li>• 5% of the total number of parking spaces provided in the parking facility, but in no case less than one, shall be Electric Vehicle Parking Spaces (EV spaces). Calculations for the required number of EV spaces shall be rounded up to the nearest whole number and the design and installation of each EV space shall be consistent with Section A4.106.8.2, Residential Voluntary Measures, and Section 4.106.4.2, of the CALGreen Code as follows:</li> </ul> <p><b>Single Charging Space Requirements.</b> When only a single EV space is required, install a listed raceway capable of accommodating a dedicated branch circuit. The raceway shall not be less than trade size 1 (nominal 1-inch inside diameter). The raceway shall be securely fastened at the main service or subpanel and shall terminate in close proximity to the proposed location of the charging system into a listed cabinet, box, or enclosure.</p> <p><b>Multiple Charging Spaces Required.</b> When multiple EV spaces are required, plans shall include the location(s) and type of EVSE, raceway method(s), wiring schematics, and electrical calculations to verify that the electrical system has sufficient capacity to charge simultaneously all the electric vehicles at all designated EV spaces at their full rated amperage. Plan design shall be based on Level 2 EVSE at its maximum operating ampacity. Only underground raceways and related underground equipment are required to be installed at the time of construction.</p> <ul style="list-style-type: none"> <li>• For multifamily residential parking facilities, bicycle parking shall be provided as specified in Section A4.106.9, Residential Voluntary Measures, of the CALGreen Code, which requires provision of on-site bicycle parking for at least one bicycle per every two dwelling units.</li> </ul> <p>Any establishment with 25 or more full-time equivalent employees shall provide Class 1 bicycle parking at a minimum ratio of one space per 20 vehicle spaces plus 1 bicycle rack for each 25 employees; for uses with no employees a minimum of one bicycle rack shall be provided. Short-term bicycle parking spaces shall be at least 10% of the number of required automobile parking spaces.</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>MM 4.3-15: <b>Residential Parking.</b> Applications for building permits submitted to County by the project proponent/developer shall include plans and specifications County demonstrating that the following features have been incorporated into the building designs or specifications for multifamily residential buildings:</p> <ul style="list-style-type: none"> <li>• Visitor parking shall include preferentially located parking spaces for electric vehicles.</li> <li>• Bicycle parking shall be provided as specified in Section A4.106.9, Residential Voluntary Measures, of the California Green Building Standards (CALGreen) Code or as required by County Code Section 22.52.1225B, whichever is more stringent.</li> </ul> <p>MM 4.3-16: <b>Electric Vehicle Charging and Incentive.</b> Applications for building permits submitted to County by project proponent/developer shall include plans and specifications demonstrating to the County that one 208/240 volts of alternating current (VAC) receptacle for charging electric vehicles shall be installed in each detached and attached single-family residence in a manner consistent with 2016 California Green Building Standards (CALGreen) Code Voluntary Tier 1 Section A4.106.4.1. The installation shall comply with requirements of the 2016 CALGreen Code Section 4.106.4.1, or the most applicable code at the time of construction. The project proponent/developer shall offer a further credit of \$500 to 50% of future homeowners (as requested by homeowner) to pay for the type of charging device then in use for electric vehicles or, with County approval, to pay for other energy conservation uses. The availability of this electric vehicle (EV) incentive benefit shall be disclosed and promoted at the time of initial sale of single-family homes and shall thereafter be promoted by the Transportation Management Association (TMA) on its website.</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>MM 4.3-17: <b>Electric Vehicles.</b> The project proponent/developer shall provide site plans and building and design specifications to the County demonstrating compliance with the Electric Vehicle Supply (EVS) charging station measures specified in MM-4.3-13. If and to the extent subsequently approved by the County, compliant with state laws, and resulting in no new significant impacts to the environment following County review and approval, EVS charging stations may be replaced by “alternative energy fueling stations,” which may include other types of electric vehicle charging technology (e.g., operating at higher or lower voltages), or alternative vehicular fuel technology that results in zero or near zero (as defined by California Air Resources Board [CARB]) greenhouse gas (GHG) emission such as hydrogen fuel cells, biofuels, or other qualifying fuel technologies. An electric charging station shall allow for simultaneous charging of two electric vehicles.</p> <ul style="list-style-type: none"> <li>• Business Park and Institutional land use designations shall provide a minimum of one EVS on site for the first 50,000 square feet of usable floor space and additional alternative energy vehicle fueling stations for each additional 50,000 square feet of usable floor space thereafter.</li> <li>• Multifamily residential buildings of at least 15 residential units shall provide a minimum of one EVS for the first 15 residential units and an additional EVS for each additional 15 residential units thereafter.</li> <li>• Each village center shall provide a minimum of one EVS.</li> <li>• The two primary transit centers on either side of I-5 shall provide a minimum of one EVS.</li> </ul>	
<b>Biological Resources</b>			
Impact 4.4-1: Have a Substantial Adverse Effect, Either Directly or through Habitat Modifications, on any Species Identified as a Candidate, Sensitive, or Special Status Species in Local or Regional Plans, Policies, or Regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	Significant	<p>Implement Mitigation Measures MM 4.3-1 through MM 4.3-4, as described in Section 4.3, <i>Air Quality</i>, and Mitigation Measure MM 4.9-1 through MM 4.9-8, as described in Section 4.9, <i>Hydrology and Water Quality</i>, and Mitigation Measure MM 4.12-1, as described in Section 4.12, <i>Noise</i>.</p> <p>MM 4.4-1 Prior to issuance of a grading or building permit, the project proponent shall retain a Lead Biologist who meets the qualifications of an Authorized Biologist as defined by U.S. Fish and Wildlife Service (USFWS) to oversee compliance with protection measures for all listed and other special-status species. All appropriate contact information for the selected biologist shall be provided to the Planning and Natural Resources Department. The Lead Biologist, or their Designated Compliance Manager (other qualified biologists designated by the Lead Biologist to perform the Lead Biologist function), shall be on the project site during construction of any perimeter fencing or grading activities throughout construction phases. The Lead Biologist shall have the right to halt all activities that are in violation of the special-status species protection measures. Work shall proceed only after hazards to special-status species have been appropriately addressed through compliance with required mitigation measures and appropriate consultation with USFWS and California Department of Fish and Wildlife (CDFW) when</p>	Significant and unavoidable

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>appropriate. The Lead Biologist shall have in his/her possession a copy of all the compliance measures while work is being conducted on the project site. In addition to the above listed duties, the Lead Biologist or their Designated Compliance Manager shall be responsible for implementation of the following provisions:</p> <ul style="list-style-type: none"> <li>a. <b>Construction Work Hours</b> The project Lead Biologist shall ensure that construction activities within 50 feet of the outside edge of the project footprint containing habitat for special-status wildlife will be prohibited between sunset and sunrise, and all construction-related lighting will be turned off during that period, with the exception of lighting for maintenance, security patrols, and emergency (defined by an imminent threat to life or significant property) activities. Lighting for maintenance shall be minimized and directed away from natural areas. Night work shall not be permitted during construction except if maintenance is required or in cases of emergency.</li> <li>b. <b>Flagging/Fencing/Demarcation</b> The project Lead Biologist shall designate the construction area and any buffer zones using highly visible materials in the field and review with the contractor in accordance with the final grading plan. State-jurisdictional channels or wetland/ riparian areas within 50 feet of the construction area to be preserved will also be demarcated in the field and avoided.</li> <li>c. <b>Debris/Non-Native Vegetation/Pollution</b> The project Lead Biologist shall monitor construction to ensure:                         <ol style="list-style-type: none"> <li>1) Fully covered trash receptacles that are animal-proof will be installed and used to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash contained within the receptacles will be removed at least once a week from the construction site.</li> <li>2) No litter, construction materials, or debris will be discharged into state-jurisdictional waters.</li> <li>3) All uses of weed and pest control compounds shall comply with the application restrictions mandated by the U.S. Environmental Protection Agency and the California Department of Pesticide Regulation.</li> <li>4) Construction work areas shall be kept clean of debris, such as cable, trash, and construction materials. All construction/contractor personnel shall collect all micro trash and litter (anything shiny, such as broken glass), vehicle fluid containers, and food waste from the project area on a daily basis.</li> <li>5) No construction material shall be stockpiled in the streambed, banks, or channels, except that native vegetation removed from the channel may be chipped and the chips used as mulch for disturbed sites in or near the work sites.</li> </ol> </li> </ul>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>6) All disturbed invasive plants, such as tamarisk, shall be removed from the work site and not used in mulching, composting, etc. If weed biomass must be removed from the site to a designated disposal area, propagules shall be secured in a tarp (without holes or rips) and then carried to a vehicle. Biomass shall be properly wrapped to prevent plant parts from blowing away in transit, and vehicles carrying weed biomass shall be inspected prior to leaving the site to ensure that no plant parts are resting on the bumpers, tailgates, or other exposed areas.</p> <p><b>d. Vehicle and Equipment Restrictions and Maintenance</b>                      The project Lead Biologist shall monitor construction to ensure:</p> <ol style="list-style-type: none"> <li>1) Maximum construction vehicle speed will be 15 miles per hour (mph) within the project footprint. Nighttime construction should be minimized to the extent possible. However, if nighttime construction or construction-related activity (e.g., security patrols, equipment maintenance) is necessary, then the speed limit shall be 10 mph.</li> <li>2) Vehicle operation within state-jurisdictional waters when surface water is present will be prohibited. Any equipment or vehicles driven and/or operated within or adjacent to a state-jurisdictional channel will be checked and maintained by the operator daily to prevent leaks of oil or other petroleum products that could be deleterious to aquatic life if introduced to the watercourse.</li> <li>3) Vehicles and equipment access will be limited to the project footprint and ingress and egress on existing roads.</li> <li>4) Staging and storage areas for spoils, equipment, materials, fuels, lubricants, and solvents will be located outside the state-jurisdictional channels and within the designated project footprint. Stationary equipment, such as motors, pumps, generators, compressors, and welders, located within or adjacent to state-jurisdictional waters shall be positioned over drip-pans or other containment. Prior to refueling and lubrication, vehicles and other equipment shall be moved away from the state-jurisdictional channels.</li> <li>5) Construction vehicle and equipment access routes within the project site will be clearly identified and will be restricted to existing roads and overland travel will be minimized and confined to areas where development will occur.</li> </ol> <p><b>e. Erosion/Silt</b>                      The project Lead Biologist shall monitor construction to ensure:</p> <ol style="list-style-type: none"> <li>1) During construction activities, temporary erosion control devices, such as straw bales, silt fencing, and sand bags, shall be used to prevent siltation in state-jurisdictional areas. Coir rolls, erosion control mats or blankets, straw or fiber wattles, or similar</li> </ol>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
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		<p>erosion control products shall be composed of natural-fiber, biodegradable materials; photodegradable or other plastic erosion control materials shall be prohibited.</p> <p>2) Silt settling basins installed during the construction process will be located away from areas of ponded or flowing water to prevent discolored, silt-bearing water from reaching areas of ponded or flowing water during normal flow regimes.</p> <p><b>f. Other Restrictions on Construction Activities and Personnel</b>                      The project Lead Biologist shall monitor construction to ensure:</p> <p>1) During construction, no pets, such as cats or dogs, should be permitted on the project's construction sites.</p> <p>2) No commercial hunting will be authorized or permitted on a portion of the project site under construction.</p> <p>3) Any contractor, employee, or agency personnel who are responsible for inadvertently killing, injuring, or trapping a listed species (e.g., San Joaquin kit fox, blunt-nosed leopard lizard) shall immediately report the incident to the project Lead Biologist. The project Lead Biologist shall contact the U.S. Fish and Wildlife Service (USFWS) (for federal Endangered Species Act (FESA) species) and California Department of Fish and Wildlife (CDFW) (for California Endangered Species Act (CESA) species) immediately in the case of a dead, injured, or entrapped listed species. The Sacramento USFWS Office and CDFW shall be notified in writing within 3 working days of the accidental death or injury to a listed species during project-related activities. Notification must include the date, time, and location of the incident or of the finding of a dead or injured animal and any other pertinent information. The USFWS contact is the Chief of the Division of Endangered Species, at 2800 Cottage Way, Suite W-2605, Sacramento, California 95825-1846, 916.414.6620 or 916.414.6600. The CDFW Central Region office is located at 1234 East Shaw Avenue, Fresno, California 93710, 559.243.4005.</p> <p>4) To prevent inadvertent entrapment of San Joaquin kit fox during construction, all excavated, steep-walled holes or trenches more than 2 feet deep shall be covered with plywood or similar materials at the close of each working day, or be 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 San Joaquin kit fox. If trapped San Joaquin kit fox are observed, escape ramps or structures shall be installed immediately to allow escape. If San Joaquin kit fox are trapped, the USFWS and CDFW shall be contacted.</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
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		<p>5) All pipes, culverts, or similar structures with a diameter of 4 inches or more that are stored at a construction site for one or more overnight periods shall be thoroughly inspected for San Joaquin kit fox before the pipe is subsequently buried, capped, or otherwise used or moved in any way. If San Joaquin kit fox is discovered inside a pipe, the project biologist shall flush the species from the pipe. If San Joaquin kit fox is discovered, that section of pipe shall not be moved until the USFWS and/or CDFW has been consulted. If necessary, under the direct supervision of the project biologist, the pipe may be moved once to remove it from the path of construction activity until the species has escaped.</p> <p><b>g. Biological Monitoring and Compliance Documentation</b>                      The project Lead Biologist shall be responsible for maintaining a database and/or tracking the following during construction:                      1) Document that required pre-construction surveys, avoidance, mitigation, and/or relocation efforts that have been implemented.                      2) Document compliance with construction measures (b)-(f) above.                      3) Document compliance with worker training.</p> <p><b>h. Project Fencing Design Requirements.</b>                      Prior to approval of any tentative tract map, the project proponent shall provide evidence that the project Lead Biologist has reviewed the map to confirm that (i) the map includes fencing where necessary along the multiuse trail border with the creek corridors and south of Edmonston Pumping Plant Road to protect the creek corridor and southern foothills open space from trespass, and (ii) the fencing location and design in and adjacent to open space preserves wildlife passage through the project site (appropriate fencing design includes the following: cattle fences consisting of strands of barbed wire, "hog-wire" fences commonly used to keep sheep out with mesh openings measuring 6 inches (15 centimeters) on each side, decorative fencing with suitable gaps (minimum of approximately 3.5 inches in width), and raised fences a few inches off the ground. Standard chain-link fence is not recommended).</p> <p><b>i. Kit Fox Habitat Enhancement Requirements</b>                      In association with the grading plan for the first phase of development in each planning area, implement the San Joaquin Kit Fox Escape Dens and Fencing Plan (Attachment A-4 to EIR Appendix F), and any revisions required by CDFW and/or USFWS, in the associated planning area OA District by overseeing installation of habitat enhancement activities including the creation of escape dens (e.g., 10–20 feet long and 8–10 inches in diameter covered pipes with exposed ends) for San Joaquin kit fox in on-site conservation areas, including Grapevine</p>	

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		<p>Creek, the tributary to Cattle Creek, areas north and south of the California Aqueduct right-of-way, and areas along the northern portion of the project site west of I-5.</p> <p>j. <b>Blasting Requirements</b>                      If blasting is required, applicable federal, state, and local requirements would be observed, and any necessary permits and authorizations would be obtained. Best Management Practices Guidelines developed by the Institute of Makers of Explosives (IME) would be implemented. To avoid impacts to special-status biological resources, blasting would occur during the rough-grading activities of construction phase of the project only between the hours of 10:00 am and 4:00 pm. To avoid potential affects to birds, blasting would outside of the nesting bird season (i.e., no blasting shall occur between September 15 to February 15). Additionally, no blasting will occur within 1 mile of the winter perch for bald eagle during the winter season (October 15 and March 15). Prior to blasting, a blasting monitoring team including the project biologist and one acoustician would be formed. The project biologist would assess and provide guidance related to the criteria for impact on any nearby noise sensitive species. The acoustician should have a minimum of five years of acoustical measurement experience and would be responsible for the blast noise and vibration measurements. Blasts should be measured with a calibrated Type 1 sound level meter set to the fast or impulse integration response. If possible, the low frequency cut off should be set as low as possible, ideally 2 Hz or lower. Peak sound levels should be measured at a known distance from blast between the blast site and the noise sensitive species habitat (identified by the project biologist). If the project biologist sees fit, the low frequency cut off requirement may be waived or adjusted to address the sensitive species in the area. If measured peak levels exceed the criteria, blasts shall be altered in a way to reduce the impact. Such mitigation efforts may include reducing the explosive material, altering the packing and placement of the explosive material, or changing the location of the blasting efforts. The biologist has the authority to stop blasting efforts or advise the blast team on the method of mitigation.</p> <p>MM 4.4-2 The project shall conserve on-site and off-site open space.</p> <p>a. <b>On-Site Mitigation Area.</b> Prior to the issuance of a grading permit for the first phase of development proposed to the east of I-5, the project proponent shall record a deed restriction or other instrument approved by the County over the designated Open Area (OA) District for planning areas 3, 4, 5a-b, and 6a-e (OA District to east of I-5). Prior to the issuance of a grading permit for the first phase of development proposed to the west of I-5, the project proponent shall record a deed restriction or other</p>	

		<p>instrument approved by the County over the designated Open Area District for planning areas 1 and 2 (OA District west of I-5).</p> <p>b. <b>Off-Site Mitigation Area.</b> Prior to issuance of grading permits for each Plan Area, the project proponent shall mitigate for the loss of special-status species habitat by recording a conservation easement over the Off-Site Mitigation Area and 87 acres to the north of the California Aqueduct over the corresponding acreage amount outlined below. In total, depending on the ultimate habitat area impacted, approximately 7,372 acres of habitat land will be preserved. No paved or lighted trails will be permitted in these mitigation areas. The mitigation would be dedicated by planning area and based on the impacts to kit fox habitat. If the project proponent records a conservation easement or deed restriction over a greater mitigation area in one phase, the next phase may be correspondingly reduced. The mitigation required is as follows:</p> <ul style="list-style-type: none"> <li>• Plan Area 1 – 615 acres</li> <li>• Plan Area 2 – 1,612 acres</li> <li>• Plan Area 3 – 1,381 acres</li> <li>• Plan Area 4 – 1,121 acres</li> <li>• Plan Area 5a – 930 acres</li> <li>• Plan Area 5b – 0 acres (On-site dedication fulfills mitigation requirement)</li> <li>• Plan Area 6a – 0 acres (On-site dedication fulfills mitigation requirement)</li> <li>• Plan Area 6b – 4 acres</li> <li>• Plan Area 6c – 568 acres</li> <li>• Plan Area 6d – 498 acres</li> <li>• Plan Area 6e – 484 acres</li> <li>• Off-Site Impact Areas – 71 acres to be added to the first grading permit.</li> </ul> <p>MM 4.4-3 <b>Environmental Awareness Training and Compliance Worker Environmental Awareness Program.</b> Prior to issuance of grading or building permit and for the duration of construction activities, the project proponent shall demonstrate it has in place a Worker Environmental Awareness Program (WEAP) for all construction workers at the project site. The Lead Biologist shall ensure all construction personal on-site complete WEAP training prior to conducting any construction related activities on-site. As part of the WEAP training, the project Lead Biologist shall perform the following training-related tasks:</p> <p>a) Provide the training materials for WEAP training. These materials shall include the measures and mitigation requirements for protected plant and wildlife species (e.g., avoidance and buffer requirements, nighttime construction limitations, etc.); the location and mitigation requirements for waters of the state; and applicable fire protection measures. The WEAP training will also provide educational materials describing condor protection measures, including where condors potentially occur within the Grapevine site, prohibited behaviors related to condors such as the pursuit, capture, harassment, and all other potential direct interaction of the species. The information shall also identify types of micro trash that could be ingested by adult breeding condors and describe measures to eliminate micro trash on</p>	
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Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
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		<p>and near all construction sites, recreational areas, roads, and backcountry locations where human presence has occurred. WEAP training will also include driver training to avoid and minimize collision risks with protected species, and reporting protocols in the event that any dead or injured wildlife are discovered.</p> <p>b) Send a copy of all WEAP training materials to the Planning and Natural Resources Department.</p> <p>c) Maintain a list on-site of all employees who have undergone WEAP training. A copy of this list shall be provided to the Planning and Natural Resources Department as necessary.</p> <p>MM 4.4-4 <b>Pre-Construction Surveys and Avoidance, Minimization and Mitigation Measures for Special Status Species.</b> Prior to issuance of grading or building permit, the project proponent shall conduct appropriate pre-construction surveys as identified below.</p> <p><b>1. Bat Roosts for Pallid Bat, Western Mastiff Bat, Western Red Bat, Townsend’s Big-Eared Bat</b></p> <p>a) <b>Pre-Construction Surveys:</b> No earlier than one year prior to the commencement of construction activities for each construction area, a pre-construction survey shall be conducted by the project biologist to establish areas of roosts occupancy of special-status bats (including maternity roosts, non-maternity roosts, and winter hibernacula) are present in the project disturbance zone or within 300 feet of the project disturbance zone boundary. The surveys shall be conducted by the Lead Biologist and consist of:</p> <ul style="list-style-type: none"> <li>i. One spring (April through June) and one winter survey (November through January);</li> <li>ii. Each survey consists of one dusk emergence survey (start one hour before sunset and last for three hours), followed by one pre-dawn re-entry survey (start one hour before sunrise and last for two hours), and one daytime visual inspection of all potential roosting habitat on the project site;</li> <li>iii. Conduct each survey within one 24-hour period;</li> <li>iv. Focus visual inspections on the identification of bat sign (i.e., individuals, guano, urine staining, corpses, feeding remains, scratch marks and bats squeaking and chattering); and</li> <li>v. Use bat detectors bat call analysis and visual observations during all dusk emergence and pre-dawn re-entry surveys.</li> </ul> <p>Data collection for each survey shall include the following information:</p> <ul style="list-style-type: none"> <li>i. Whether bats are, or have been, present at roosts on the project site;</li> </ul>	

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		<ul style="list-style-type: none"> <li>ii. Assemblage of species using the site for roosting;</li> <li>iii. Type of roost (i.e., maternity roost, day roost, night roost, feeding perch, mating roost, satellite roost, transitional roost or winter hibernaculum);</li> <li>iv. Location, ambient temperature, internal dimensions and the aspect and orientation of the roost;</li> <li>v. Spatial and temporal distribution of bat roosting activity;</li> <li>vi. Flight paths, exit and entrance points;</li> <li>vii. Number of bats, time and duration of use observed during roost surveys;</li> <li>viii. Photographs; and</li> <li>ix. Identification of any survey constraints.</li> </ul> <p>If roosts are detected during pre-construction surveys, the following avoidance measures will be implemented unless relocation and/or take is authorized under California Endangered Species Act (CESA), as required by applicable law.</p> <p>b) <b>Avoidance Measures Fencing Installation</b></p> <ul style="list-style-type: none"> <li>i. <i>For Maternity Roosts:</i> If an active maternity roost is identified in these areas, the maternity roost will not be directly disturbed, and some construction activities, such as mass-grading or other activities involving heavy equipment, within 300 feet of the maternity roost may be postponed or halted until the maternity roost is vacated and juveniles have fledged, as determined by the project biologist. The rearing season for native bat species in California is approximately April 1 through August 31.</li> <li>ii. <i>For Hibernacula or Non-Maternity Roosts:</i> If non-breeding bat roosts (hibernacula or non-maternity roosts) are found within the disturbance zone, the following shall be implemented:                         <ul style="list-style-type: none"> <li>a. Avoid direct and indirect impacts to roosting sites by establishing a no-disturbance buffer of 300 feet around roost sites.</li> <li>b. Prohibit clearing and grubbing adjacent to the roost site and lighting use near the roost site where it would shine on the roost or interfere with bats entering or leaving the roost. Prohibit the operation of internal combustion equipment, such as generators, pumps and vehicles within 300 feet of the roost site. Prohibit the use of bird netting.</li> <li>c. If avoidance of roost sites is infeasible, maintain portions of the features that provide naturalized habitat to the greatest extent possible and improve</li> </ul> </li> </ul>	

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		<p>existing roost sites and/or provide new roost sites on buildings or on the project site. Implement these measures only after consultation with CDFW.</p> <ul style="list-style-type: none"> <li>d. New roost sites must be in place prior to the initiation of project-related activities to allow enough time for bats to relocate.</li> <li>e. Design and locate new and enhanced roost sites to be compatible with the bats' search image and habitat requirements (i.e., thermal regulation, interior size, ventilation, etc.). Design new and enhanced roost sites in consultation with CDFW.</li> <li>f. Exclude bats from directly affected work areas selectively and only to the extent necessary to prevent morbidity or mortality to the colony. Use one-way bat exclusion devices, installed in a bat-safe way, to exclude bats and then use steel wool or other method to block the entrance, after the bats have gone. Exclude bats only after consultation with CDFW, at a time that is compatible with the species' normal behavior patterns (i.e., breeding, feeding, hibernating, etc.). In general, exclusions shall not occur during the maternity/pup-rearing season or during the hibernation season, as determined by conditions at the project site.</li> </ul> <p><b>2. Blunt-Nosed Leopard Lizard</b></p> <ul style="list-style-type: none"> <li>a) <b>Pre-Construction Surveys</b> <ul style="list-style-type: none"> <li>i. <i>Focused Protocol Surveys Prior to Construction:</i> Prior to the initiation of any on-site grading and construction activities, the project biologist shall conduct focused protocol surveys in accordance with the CDFW Approved Survey Methodology for the Blunt-Nosed Leopard Lizard within suitable habitat for blunt-nosed leopard lizard in the survey season immediately prior to grading or construction.</li> <li>ii. <i>Clearance Surveys Prior to Construction:</i> Prior to ground-disturbing activities that would occur between March and November, three to five clearance surveys shall be conducted for blunt-nosed leopard lizard in and within 50 feet of areas of proposed disturbance. The surveys shall be conducted within 30 days of the initiation of construction activities or re-initiation of construction activities after a period of delay or suspension of more than 30 days and shall be conducted, pursuant to CDFW protocol-required timing and weather criteria. If construction activities are initiated within 30 days of the focused protocol surveys, then clearance surveys are not required.</li> </ul> </li> </ul> <p>Should any blunt-nosed leopard lizards be observed during the surveys, all locations where the species was observed shall be conspicuously marked in the</p>	

		<p>field and on appropriate maps. In addition, all available burrows within 50 feet of the blunt-nosed leopard lizard observation shall be conspicuously marked in the field and on maps.</p> <p>If blunt-nose leopard lizards are detected during any identified survey of the project site, the following provisions shall be implemented.</p> <p><b>b) Avoidance Measures Fencing Installation</b></p> <ul style="list-style-type: none"> <li>i. If blunt-nosed leopard lizards are observed during the surveys, an appropriate buffer, which shall include a minimum 50-foot setback from potential burrows within 50 feet of the siting, shall be established by a qualified biologist to avoid the species and comply with applicable regulations, and exclusion fencing shall be installed in such a manner as to segregate blunt-nosed leopard lizard from the construction footprint and to ensure that direct take of the species does not occur. The actual distance from the construction area where exclusion fencing is installed may depend on each construction site, but the fencing will be installed at a maximum 50-foot radius from the outermost edge of the construction footprint. The project biologist shall be on site during the fencing installation to ensure that no blunt-nosed leopard lizards are inadvertently harmed/harassed during installation.</li> <li>ii. Fencing shall provide escape routes from excluded areas to enable blunt-nosed leopard lizards to move outside the excluded area away from construction activities. After exclusionary fences are installed, a qualified Level 2 surveyor, as defined by CDFW shall perform a minimum of five consecutive daily surveys within the fenced area to ensure no blunt-nosed leopard lizards are located within the excluded zone. At the discretion of the project biologist, but no sooner than after the 5 days of surveys, the fencing escape routes shall be closed to prevent blunt-nosed leopard lizard from reoccupying the area prior to commencing earth-disturbing activities. The fenced zone can be expanded in the proposed project footprint, consistent with the buffer established above, as necessary and following the same survey and escape route protocol described above, to exclude individual blunt-nosed leopard lizard from construction zones.</li> <li>iii. If blunt-nosed leopard lizards are observed or suspected (based on scat, tail drag marks, or other sign) of occurring within a fenced construction zone during the exclusion zone surveys, daily surveys shall be conducted for another consecutive five days from the date of the observation to allow sufficient time for individual blunt-nosed leopard lizard to vacate the excluded area.</li> </ul> <p><b>c) Fencing Specifications</b></p> <p>Any exclusion fencing constructed for the blunt-nosed leopard lizard shall meet several criteria:</p> <ul style="list-style-type: none"> <li>i. The exclusion fencing shall be long-lasting and ultraviolet stable and shall be maintained and repaired as directed by the project biologist.</li> </ul>	
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		<ul style="list-style-type: none"> <li>ii. The fencing shall be constructed of a material that will not permit blunt-nosed leopard lizard to pass through or become endangered or trapped.</li> <li>iii. The fencing shall include 36-inch flashing buried 12 inches below the ground and reinforced with metal rebar or wood stakes.</li> <li>iv. Where needed, fencing shall provide escape routes from excluded areas, including the construction footprint.</li> <li>v. Tightly woven fiber netting or similar material shall not be used for erosion control or other purposes at the project site to ensure that blunt-nosed leopard lizard do not become entangled or trapped.</li> </ul> <p><b>d) Monitoring During Construction</b></p> <ul style="list-style-type: none"> <li>i. Relocation and/or take of a blunt-nosed leopard lizard may only occur if authorized pursuant to a Natural Community Conservation Plan (NCCP).</li> <li>ii. During on-site grading and construction activities, the exclusion fencing shall be maintained to continue to exclude blunt-nosed leopard lizard from entering all construction and activity areas. During on-site grading and construction activities, the project biologist shall be on site in any areas where exclusion fencing has been installed to confirm the absence of blunt-nosed leopard lizards within these areas and to serve as a monitor to ensure that no harm to individual blunt-nosed leopard lizards occurs in the event a blunt-nosed leopard lizard is observed or found to be within an excluded area. The project biologist shall also regularly inspect buffer and exclusion fencing during these activities to ensure the fencing remains in good condition. Construction crews and vehicles shall not enter (including temporarily entering) any designated buffer zones around suspected blunt-nosed leopard lizard burrows at any time. Buffer flagging and exclusion fencing will only be removed once all ground disturbance activities have ceased and it is confirmed that no additional ground-disturbance activities will occur within the fenced area or near burrow buffer zones. Once the fencing has been removed, appropriate signage will be installed to educate workers of the need to avoid known blunt-nosed leopard lizards within and near activity areas.</li> </ul> <p><b>e) Stop Work Authority</b></p> <p>The project Lead Biologist may authorize the cessation of construction activities for the following reasons:</p> <ul style="list-style-type: none"> <li>i. The monitoring biologist believes, for any reason, blunt-nosed leopard lizards may be at risk;</li> <li>ii. If blunt-nosed leopard lizards are observed within a work area;</li> </ul>	

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		<ul style="list-style-type: none"> <li>iii. Poor fence condition necessitates repair;</li> <li>iv. If construction activities threaten established fence or buffers; Stop work may be rescinded only at the discretion of the project Lead Biologist and only when any threat to blunt-nosed leopard lizards has passed.</li> <li>f) <b>Documentation</b> Documentation shall be provided for focused protocol surveys, pre-construction clearance surveys, final fence design and installation, education training, and monitoring activities and monitoring results (i.e., the avoidance of take of blunt-nosed leopard lizard). This documentation shall be submitted to the County and resource agencies (as required).</li> <li>3. <b>Nelson’s Antelope Squirrel</b> <ul style="list-style-type: none"> <li>a) <b>Pre-Construction Surveys</b> Surveys for Nelson’s antelope squirrel shall be conducted as part of the required surveys for blunt-nosed leopard lizard, which are conducted in 10 to 30 meter transects during San Joaquin Valley Antelope Squirrel active season, from April to September. Surveys shall cover the disturbance area and a 50-foot buffer. If there is a break in construction activities for more than 30 days, subsequent clearance surveys shall be required prior to commencement of construction activities. A report documenting the results of the pre-construction surveys shall be submitted to the County within 30 days after performing surveys. If any Nelson’s Antelope Squirrel are detected as a result of these surveys, the following provisions shall be required.</li> <li>b) <b>Avoidance Measures</b> If practicable, any burrows that are suspected or known to be occupied by Nelson’s antelope squirrel and a 50-foot avoidance buffer around the burrows will be avoided by grading and construction activities through establishing an appropriate buffer, which shall include a minimum 50-foot setback from such known or suspected burrows, by a qualified biologist to avoid the species and comply with applicable regulations, and shall include the erection of temporary fencing.</li> <li>c) <b>Relocation</b> If burrows suspected or known to be occupied and/or the established avoidance buffer around the burrows cannot be avoided, then Nelson’s antelope squirrel shall be trapped and relocated to an approved release site on Tejon Ranch pursuant to appropriate take authorizations.</li> </ul> </li> </ul>	

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		<p><b>4. San Joaquin Kit Fox</b></p> <p><b>a) Pre-Construction Surveys</b>                      Pre-construction surveys shall be conducted within the disturbance zone and a 200-foot buffer around the disturbance zone in suitable habitat no less than 14 days and no more than 30 days prior to the beginning of each construction area of grading or construction activity. Pre-construction surveys will identify San Joaquin kit fox habitat features on the project site and evaluate use by San Joaquin kit fox. The status of all possible San Joaquin kit fox dens will be categorized as a potential, atypical, known, or pupping den type and will be mapped. The results of these surveys shall be submitted to the County and resource agencies (as required) within 5 days of survey completion and prior to commencement of ground disturbance and/or construction activities.</p> <p>If any signs of the San Joaquin kit fox are identified as a result of the required pre-construction surveys, the following provisions shall be required.</p> <p><b>b) Avoidance Measures</b>                      Buffer distances and measures shall be established, as described below, by den type prior to construction activities. If avoidance is not a reasonable alternative, limited destruction of kit fox dens is allowed (see item c below).</p> <p>i. San Joaquin kit fox potential or atypical den: If a potential or atypical den is found, placement of four or five flagged stakes 50 feet from the den entrance(s) will suffice to identify the den location; fencing will not be required but the 50-foot exclusion zone must be observed. Only essential vehicle operation on existing roads and foot traffic is permitted within the exclusion zones. Otherwise, all construction, vehicle operation, material storage, or any other type of surface-disturbing activity should be prohibited or greatly restricted within the exclusion zones.</p> <p>ii. San Joaquin kit fox known den: If a known den is found, a 100-foot exclusion zone shall be demarcated by fencing that encircles each den at the appropriate distance and does not prevent access to the den by San Joaquin kit fox. Acceptable fencing includes untreated wood particleboard, silt fencing, orange construction fencing, or other fencing as long as it has openings for San Joaquin kit fox ingress/egress and keeps humans and equipment out. Exclusion zone fencing should be maintained until all construction-related disturbances have been terminated. At that time, all fencing shall be removed to avoid attracting subsequent attention to the dens.</p> <p>iii. San Joaquin kit fox natal/pupping den: If a San Joaquin kit fox natal/pupping den is documented during pre-construction surveys, the USFWS will be contacted.</p>	

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		<ul style="list-style-type: none"> <li>iv. Buffer distances and measures can be modified with prior authorization from the CDFW and USFWS.</li> <li>c) <b>Den Excavation</b> Based on the results of the pre-construction surveys, if avoidance of dens is not a reasonable alternative, limited destruction of San Joaquin kit fox dens may be allowed. Dens shall be fully excavated, filled with dirt, and compacted to ensure that San Joaquin kit fox cannot reenter or use the den during the construction period. Hand excavation shall be used whenever feasible. If at any point during the excavation a San Joaquin kit fox is discovered inside the den, the excavation activity shall cease immediately and the den shall be monitored as described below. Destruction of the den may be completed when, in the judgment of the project Lead Biologist, the animal has escaped without further disturbance. Excavation of dens shall be conducted under the supervision of the project Lead Biologist, in accordance with USFWS <i>Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox prior to or during Ground Disturbance</i>, as follows:                             <ul style="list-style-type: none"> <li>i. Absolutely no excavation of San Joaquin kit fox known dens shall occur without prior authorization from the USFWS or CDFW. Destruction of any known or natal/pupping San Joaquin kit fox den requires take authorization from the USFWS and CDFW.</li> <li>ii. Hand excavation if required unless that soil conditions necessitate the use of excavating equipment; however, extreme caution must be exercised.</li> <li>iii. Natal/pupping dens: Natal/pupping dens that are occupied will not be destroyed until the pups and adults have vacated and consultation with the USFWS and CDFW has occurred.</li> <li>iv. Known dens: Known dens within the footprint of the activity must be monitored for 3 days with a tracking medium or an infrared beam camera to determine the current use. If no San Joaquin kit fox activity is observed during this period, the den shall be destroyed immediately to preclude subsequent use. If San Joaquin kit fox activity is observed at the den during this period, the den shall be monitored for at least 5 consecutive days from the time of observation to allow any resident animal to move to another den during its normal activity. Use of the den can be discouraged during this period by partially plugging the entrance(s) with soil in such a manner that any resident animal can escape easily. Only when the den is determined to be unoccupied may the den may be excavated under the direction of the project Lead Biologist. If the animal is still present after 5 or more consecutive days of plugging and monitoring,</li> </ul> </li> </ul>	

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		<p>the den may have to be excavated when, in the judgment of the project Lead Biologist, it is temporarily vacant, for example, during the animal's normal foraging activities.</p> <p>v. Potential/atypical dens: If a take authorization/permit has been obtained from the USFWS and CDFW, den destruction may proceed without monitoring, unless other restrictions were issued with the take authorization/permit. If no take authorization/permit has been issued, then potential and atypical dens should be monitored as if they were known dens. If any den was considered to be a potential or atypical den, but is later determined during monitoring or destruction to be currently or previously used by San Joaquin kit fox (e.g., if San Joaquin kit fox sign is found inside), then all construction activities shall cease and the USFWS and CDFW shall be notified immediately.</p> <p>d) <b>Reporting</b>                      New sightings of San Joaquin kit fox shall be reported to the California Natural Diversity Database (CNDDDB). For federally listed species, a copy of the reporting form and a topographic map clearly marked with the location of where the San Joaquin kit fox was observed should also be provided to the USFWS.</p> <p>5. <b>Swainson's Hawk</b></p> <p>a) <b>Pre-Construction Surveys</b>                      Pre-construction surveys for Swainson's hawk shall be conducted during the two survey periods prior to construction by the project Lead Biologist following the survey methods developed by the Swainson's Hawk Technical Advisory Committee (SWHA TAC 2000). These methods include surveying for active nests within a 0.5-mile radius of all project activities prior to construction activities.</p> <p>b) <b>Avoidance Measures</b></p> <p>i. If active nests are found during these surveys, the CDFW <i>Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (Buteo swainsoni) in the Central Valley of California</i> recommends no intensive disturbances (e.g., heavy equipment operation associated with construction, use of cranes or draglines, new rock-crushing activities) or other project-related activities that may cause nest abandonment or forced fledging within 0.25 mile of an active nest. The buffer zone should be increased to 0.5 mile in nesting areas away from urban development (i.e., in areas where disturbance—such as heavy equipment operation associated with construction, use of cranes or draglines, new rock-crushing activities—is not a normal occurrence during the nesting season). Active nest trees (where the nest is intact and has been used in the last 5 years) shall not be removed unless there is no practicable way of avoiding them.</p>	

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		<ul style="list-style-type: none"> <li>ii. If an active nest tree must be removed, a California Fish and Game Code Section 2081 Incidental Take Permit, including conditions to offset the loss of the nest tree, may be required to be obtained with the tree removal period specified in the Incidental Take Permit, generally between October 1 and February 1. Encroachment within a 0.5-mile no-disturbance buffer may also require prior acquisition of an Incidental Take Permit.</li> <li>c) <b>Monitoring During Construction</b> If construction or other project-related activities that may cause nest abandonment or forced fledging are necessary within the buffer zone, monitoring of the nest site by the project Lead Biologist to determine whether the nest is abandoned shall be required. If it is abandoned and if the nestlings are still alive, the master developer shall fund the recovery and hacking (i.e., the controlled release of captive-reared young) of the nestling(s). Existing activities such as agricultural activities, commuter traffic, and routine facility maintenance activities within 0.25 mile of an active nest shall not be prohibited.</li> </ul> <p><b>6. Bald Eagle</b></p> <ul style="list-style-type: none"> <li>a) <b>Avoidance Measures</b> There is a known eagle roost at Edmonston Pumping Plant Road. This roost and any other roost identified on the project site as a result of any biological observation shall not be removed between October 15 and March 15, when bald eagles winter in this region.</li> <li>b) <b>Roost Relocation/Creation</b> <ul style="list-style-type: none"> <li>i. Prior to issuance of any grading or building permit located in Plan Area 5a, the project proponent shall conduct an assessment of the feasibility of relocating the snag tree. The assessment will include an evaluation of the integrity of the snag to withstand relocation, potential relocation sites, and methodology of relocation. If relocation of the snag is determined to be feasible and have a high degree of success, the snag shall be relocated to an appropriate on-site open space or a suitable off-site location as close to the existing snag as feasible, as approved by a qualified eagle biologist, but at a minimum distance of 200 meters (656 feet) from development and potential human disturbance areas, particularly foot traffic (e.g., trails). The snag shall be relocated prior to the bald eagle wintering season (generally October 15 through March 15 in this region).</li> <li>ii. If relocating the existing snag is considered not to be practical and not to have a high probability of success, a new roosting/perching area shall be created that shall meet the following criteria:</li> </ul> </li> </ul>	

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		<ul style="list-style-type: none"> <li>a. The created roost in an appropriate foraging area shall be installed prior to the bald eagle wintering season (generally October 15 through March 15 in this region).</li> <li>b. Because bald eagles prefer dead trees for daytime perches, at least one snag along with deciduous trees (at a 1:1 ratio to the trees being removed near the existing snag) shall be installed. The snag and deciduous trees shall replicate as closely as possible the dimensions, structure, and overall characteristics of the existing snag and deciduous trees to both provide unobstructed views and serve as a stable perch/roost site for the eagles.</li> <li>c. The snag and associated deciduous trees shall be located at an appropriate on-site open space or a suitable off-site location as close to the existing snag as feasible, as approved by a qualified eagle biologist, and at a minimum in a location that maximizes flight clearance, visibility of foraging grounds, and proximity to foraging habitat. In addition, the roosting/ perching area shall be located a minimum of 200 meters (656 feet) away from development and potential human disturbance, particularly foot traffic (e.g., trails).</li> </ul> <p><b>7. California Condor</b></p> <ul style="list-style-type: none"> <li>a) <b>Avoidance Measures</b> If condors are observed landing in or near the construction site, construction within 500 feet of the sighting will cease until the bird(s) have left the area, or as otherwise authorized by CDFW and the USFWS. Should USFWS notify the project Lead Biologist that condors are roosting within 0.5 mile of the construction area, no construction activity shall occur between 1 hour before sunset to 1 hour after sunrise, or until the condors leave the area, or as otherwise directed by the USFWS. The USFWS and CDFW will be notified with 24 hours of an encounter with a California condor.</li> </ul> <p><i>Other Special-Status Species</i></p> <p><b>8. American Badgers</b></p> <ul style="list-style-type: none"> <li>a) <b>Pre-Construction Surveys (Wintering)</b> Pre-Construction surveys shall be required for any construction activities commencing between November 1 and February 15. Surveys shall be conducted no more than 14 days prior to construction activities to determine whether American badger winter dens are present within disturbance zone or within 100 feet of the disturbance zone boundary. If project activities are delayed or suspended for more than 14 days, the project-construction surveys shall be repeated.</li> </ul>	

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		<p><b>b) Avoidance Measures (Wintering)</b>                      If an American badger winter den is occupied within the disturbance zone or within 100 feet of the disturbance zone, then the den location shall be clearly marked with fencing or flagging, in a manner that does not isolate the badger from intact adjacent habitat or prevent the badger from accessing the den, to avoid inadvertent impacts on the den. If it is not practicable to avoid the wintering den during construction activities, an attempt will be made to trap or flush the individual and relocate it to suitable open space habitat. Additionally, badgers can be relocated by slowly excavating the burrow, either by hand or mechanized equipment under the direct supervision of the project biologist, removing no more than 4 inches at a time. After necessary trapping, flushing, or burrow excavation is completed, construction may proceed and the vacated winter den may be collapsed. If trapping is required, trapping will be limited to November 16 through the last day of February in accordance with Section 461, Title 14 of the California Code of Regulations (14 CCR 461). A written report documenting the badger removal shall be provided to the CDFW within 30 days of relocation.</p> <p><b>c) Pre-Construction Surveys (Natal Dens)</b>                      Pre-Construction surveys shall be required for any construction activities commencing between March 15 and July 31. Pre-construction surveys shall be conducted by the project biologist no earlier than 14 days prior to ground-disturbing construction activities to determine whether American badger natal dens are present within the project disturbance zone or within 200 feet of the disturbance zone.</p> <p><b>d) Avoidance Measures (Natal Dens)</b>                      If active natal dens are located within these areas during pre-construction surveys, construction activities shall be postponed. If natal dens are detected during construction, construction activities shall be halted within 200 feet of the natal den. This buffer may be reduced based on the location of the den or type of construction activity, based on the direction of the project biologist. Construction activities shall not preclude the ability of the documented badgers to disperse to on-site open space or off-site habitat when the natal den is vacated (i.e., habitat suitable for dispersal must be maintained until dispersal occurs). Construction will be postponed or halted in these areas until it is determined by the project biologist that the young are no longer dependent on the natal den. To avoid inadvertent impacts during construction and to ensure that construction activities are at least 200 feet from active natal dens, any active natal dens within the survey area shall be clearly marked with fencing or flagging in a manner that does not isolate the badger from intact adjacent habitat, prevent the badger from accessing the den, or inhibiting</p>	

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		<p>normal behavioral activities (e.g., foraging and dispersing from the site) by the mother and pups.</p> <p><b>9. Burrowing Owl</b></p> <p><b>a) Pre-Construction Surveys</b>                      The project biologist shall conduct pre-construction take-avoidance surveys no more than 30 days prior to ground-disturbing activities within each construction area. Focused burrowing owl surveys shall be conducted in accordance with the CDFW Staff Report on Burrowing Owl Mitigation, with the exception of the survey buffers, which follows the California Burrowing Owl Consortium. Breeding season surveys shall include at least four survey passes completed between February 15 and July 15, with at least one visit between February 15 and April 15, and a minimum of three survey visits (at least 3 weeks apart) between April 15 and July 15, including at least one visit after June 15. Non-breeding season surveys shall include at least four visits spread evenly throughout the non-breeding season. The surveys shall be conducted in suitable burrowing owl habitat within 150 meters (492 feet) of the project footprint. Surveys shall be conducted by walking 20-meter transects. Because burrowing owls can recolonize a site after a few days, time lapses between project activities trigger subsequent take avoidance surveys, including, but not limited to an additional survey within 24 hours of ground-disturbing activities. Once surveys are completed, the project biologist shall prepare a survey report on the survey methods and results.</p> <p><b>b) Avoidance Measures</b>                      Implement Burrowing Owl Exclusion Plan, which includes four avoidance and relocation strategy tiers: Tier 1 – Avoidance Buffers; Tier 2 – Passive Relocation; Tier 3 – Prevention of Recolonization of Development Areas; and Tier 4 – Active Relocation (Optional). Refer to Appendix F of this EIR, specifically Appendix A-1 of the Biological Resources Technical Report for the Grapevine Specific Plan for more details on avoidance buffers and relocation methods.                      A standard minimum avoidance buffer of 75 meters (246 feet) will be applied to occupied nest sites during the burrowing owl breeding season (February 1–August 31). If the project biologist determines that a smaller buffer would be adequate to protect the active nest site, a smaller buffer may be implemented, but only after consultation with and approval from CDFW. This avoidance buffer is not required during the nesting season if the project biologist verifies through noninvasive methods that either (1) the birds have not begun egg laying and incubation or (2) juveniles from the occupied burrows are</p>	

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		<p>capable of independent survival (i.e., they are foraging independently and are not dependent on the natal burrow).</p> <p><b>10. Nesting Birds</b></p> <p><b>a) Pre-Construction Surveys</b></p> <p>i. The project biologist shall conduct pre-construction surveys no earlier than seven days prior to any on-site grading and construction activities within each construction area and a 500-foot buffer that occurs during the nesting/breeding season of special-status bird species potentially nesting on the site, with the exception of the special-status bird species addressed in other measures (including burrowing owl and Swainson's hawk). The pre-construction surveys shall be conducted between March and September, or as determined by the project biologist.</p> <p>ii. The purpose of the pre-construction surveys will be to determine whether occupied nests are present in the disturbance zone or within 500 feet of the disturbance zone boundary.</p> <p><b>b) Avoidance Measures</b></p> <p>If occupied nests are found, then limits of construction to avoid occupied nests shall be established by the project biologist in the field with flagging, fencing, fencing, or other appropriate barriers (e.g., 250 feet around active passerine nests to 500 feet around active non-listed raptor nests) and construction personnel shall be instructed on the sensitivity of nest areas. The project biologist shall serve as a construction monitor during those periods when construction activities are to occur near active nest areas to avoid inadvertent impacts to these nests. The project biologist may adjust the 250-foot or 500-foot setback at his or her discretion depending on the species and the location of the nest (e.g., if the nest is well protected in an area buffered by dense vegetation). Once the nest is no longer occupied for the season, construction may proceed in the setback areas. Once a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival, construction may proceed in the setback areas.</p> <p><b>11. San Diego Black-Tailed Jackrabbit</b></p> <p><b>a) Pre-Construction Surveys</b></p> <p>No earlier than 72 hours prior to construction activities, the project biologist shall conduct a survey within the proposed construction disturbance zone and within 200 feet of the disturbance zone for San Diego black-tailed jackrabbit. If project activities are delayed or suspended for more than 14 days, the project-construction surveys shall be repeated.</p>	

		<p>b) <b>Avoidance Measures</b>                  If San Diego black-tailed jackrabbits are present, the area shall be surveyed for occupied burrows. If occupied burrows are found, these shall be flagged with a 50-foot buffer and avoided until the burrows are vacated.</p> <p>12. <b>Western Spadefoot</b></p> <p>a) <b>Pre-Construction Surveys</b>                  Prior to approval of a Grading Permit the project proponent shall provide to the County evidence verified by the Project Biologist that the area proposed to be graded, including a 300-foot buffer area, has been surveyed for suitable western spadefoot breeding habitat. If suitable breeding habitat is identified, the verification shall include a map of the delineated areas, including the 300-foot buffer which are to be avoided. Surveys shall be conducted within 60 days prior to construction during a time of year when the species can be detected above ground at suitable breeding sites to the extent feasible. Suitable breeding habitat is defined as areas of temporarily ponded water, including within creeks and within the valley floor uplands. Suitable breeding sites should support ponded water for at least three weeks. To ensure that diseases are not conveyed between work sites by the project biologist or his or her assistants, the fieldwork code of practice developed by the Declining Amphibian Populations Task Force will be followed at all times.</p> <p>b) <b>Avoidance Measures</b>                  If western spadefoot is detected within the project footprint, measure "(i)" shall be implemented. If western spadefoot is detected outside the project footprint, but within 300 feet of the project footprint boundary, measure "(ii)" shall be implemented. Prior to implementation of avoidance measures, the project biologist shall confer with CDFW.</p> <p>i. If western spadefoot is detected (including egg masses, larvae) in water within the project footprint and cannot be permanently avoided (e.g., by placing a resource avoidance area over the site), suitable breeding habitat shall be created within suitable natural sites in open space outside the project footprint under the direction of the project biologist. The amount of occupied breeding habitat to be impacted by the project shall be replaced at a 2:1 ratio. The habitat creation location shall be in suitable habitat within on-site open space and as far away as feasible from residential and commercial development and roads. The created breeding habitat shall be designed such that it only supports standing water for no longer than three months following winter rains in order that aquatic predators (e.g., fish, bullfrogs, and crayfish) cannot become established. Terrestrial habitat surrounding the proposed relocation site shall be as similar in type, aspect, and density to the location of the impacted breeding site as feasible. No site preparation or construction activities shall be permitted within 300 feet of the vicinity of the impacted breeding site until the design and construction of the pool habitat in preserved areas of the site has been completed and all detected</p>	
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		<p>western spadefoot tadpoles, egg masses, and adults are moved to the created breeding habitat.</p> <p>The project biologist shall monitor the relocation site for a cumulative total of five years in which environmental conditions are conducive for spadefoots to successfully complete the breeding cycle (i.e., adequate rain for pools to hold water for a sufficient period). Monitoring shall be conducted during and immediately following peak breeding season such that surveys can be conducted for adults as well as for egg masses and larval and metamorphic western spadefoot. Success criteria for the monitoring program shall include verifiable evidence of western spadefoot reproduction at the relocation site during five years with suitable breeding conditions.</p> <p>ii. If western spadefoot is detected (including egg masses, larvae) in water within 300 feet of the project footprint boundary, but not within the project footprint itself, an exclusion fence shall be constructed along the project boundary between the construction footprint and the occupied breeding site to prevent spadefoots from moving into and aestivating within the construction footprint. The exclusion fencing shall consist of 16-inch metal flashing, or an equivalent material, which shall be buried at least 6 inches below the ground surface, extending at least 8 inches above the ground. The fencing shall cover a sufficient length of the boundary to inhibit spadefoots from entering the project footprint. The necessary length and appropriate location of the exclusion fence relative to the occupied breeding site shall be determined by the project biologist.</p> <p>No construction activities involving heavy equipment generating noise, ground vibration, and/or dust shall be allowed within 300 feet of occupied breeding sites until western spadefoots have metamorphosed and are no longer present in the breeding pool, as determined by the project biologist. Acceptable construction activities (e.g., quiet and/or low impact activities) within 300 feet of the occupied breeding site shall be allowed at the discretion of the project biologist.</p> <p><b>13. Least Bell's vireo and Little Willow Flycatcher</b></p> <p>a) <b>Pre-Construction Surveys</b></p> <p>In the season prior to construction within 500 feet of suitable habitat, the project biologist shall conduct focused surveys for least Bell's vireo and little willow flycatcher. Least Bell's vireo surveys will follow the currently accepted <i>Least Bell's Vireo Survey Guidelines</i> (USFWS 2001). Surveys for flycatcher will be conducted using the methods outlined in <i>A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher issued by the U.S. Geological Survey (USGS) and U.S. Department of the Interior and</i></p>	

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		<p><i>approved by the USFWS</i> (Sogge et al. 2010). Surveys for least Bell's vireo and willow flycatcher will be conducted concurrently.</p> <p>b) <b>Avoidance Measures</b>                      If active nests are found, clearing and construction within 500 feet of the nest shall be postponed or halted until the nest is vacated and juveniles have fledged, as determined by the project Lead biologist, and there is no evidence of a second attempt at nesting. If no active nests are observed, construction may proceed. If active nests are found, work may proceed provided that construction activity is located at least 500 feet from active nests (or as authorized through take permits). This buffer may be adjusted provided noise levels do not exceed 60 dBA hourly Leq at the edge of the nest site as determined by a qualified biologist in coordination with a qualified acoustician.                      If the noise meets or exceeds the 60 dBA Leq threshold, or if the biologist determines that the construction activities are disturbing nesting activities, the biologist shall have the authority to halt the construction and shall devise methods to reduce the noise and/or disturbance in the vicinity. This may include methods such as, but not limited to, turning off vehicle engines and other equipment whenever possible to reduce noise, installing a protective noise barrier between the nest site and the construction activities, and working in other areas until the young have fledged. If noise levels still exceed 60 dBA Leq hourly at the edge of nesting territories and/or a no-construction buffer cannot be maintained, construction shall be deferred in that area until the nestlings have fledged. All active nests shall be monitored on a weekly basis until the nestlings fledge. The qualified biologist shall be responsible for documenting the results of the surveys and the ongoing monitoring and for reporting these results to CDFG and USFWS.</p> <p>14. <b>Rare Plants</b>                      a) <b>Pre-Construction Surveys</b>                      Pre-Construction Surveys: Prior to the commencement of construction activities in suitable habitat (i.e., OA District, EA District and Planning Area 5b), a pre-construction survey shall be conducted in suitable habitat by the project biologist to determine whether special-status plants are present in the disturbance zone or within 50 feet of the project disturbance zone boundary. Focused surveys for special-status plant species shall be conducted by a qualified biologist according to: the CNPS Botanical Survey Guidelines (CNPS, 2001); Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFG, 2009); and U.S. Fish and Wildlife Service General Rare Plant Survey Guidelines (Cypher, 2002). The pre-construction survey shall be conducted during a period when the target species would be observable and</p>	

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		<p>identifiable (e.g., blooming period for annuals). The target species list will include Tejon poppy, Piute Mountains navarretia, and calico monkeyflower, and other special-status plants (e.g., federally or state listed, or with a CRPR of 1 or 2) that have the potential to occur, as determined by the project biologist, in the disturbance zone or within 50 feet of the disturbance zone.</p> <p>b) <b>Avoidance, Minimization, and Mitigation Measures</b>                      If special-status plants are detected during pre-construction surveys, the location of the species will be mapped. If impacts to special-status plants cannot be avoided, the following measures will be implemented: Special-status plants in the vicinity of the disturbance will be temporarily fenced or prominently flagged to prevent inadvertent encroachment by vehicles and equipment during the activity; ground surface disturbance will be limited to the dormant period (i.e., after seed set and prior to germination); seed/bulb collection, storage, and dispersal/transplanting following the construction activity; and topsoil salvage, stockpiling, and replacement as soon as practicable after project completion. Additionally, while it is not expected that a federally or state-listed plant would be observed during these surveys, the project proponent shall consult with the applicable agency (i.e., CDFW and/or USFWS) for measures required for federally or state-listed plant species, if observed.</p> <p>MM 4.4-5 <b>Aboveground Utilities.</b> Prior to approval of any tentative tract map, the project proponent shall include a note on the map that no new aboveground high-voltage towers or power lines shall be built as part of the proposed construction or, if existing utilities are to be relocated, they shall be located within 1,000 feet of existing overhead structures and that construction specifications shall be consistent with the Avian Powerline Interaction Committee guidance.</p> <p>MM 4.4-6 <b>Restrictions on Landscaping Palettes and Plants.</b> Concurrent with the submittal of a tentative tract map, parcel map (excluding financing maps), or commercial/industrial site plan, the project proponent shall submit a landscape plan for review. The plan shall include plant palette proposed for use on landscaped slopes, street medians, park sites, and other public landscaped zones within 100 feet of open space and verification that the palette was reviewed by the project Lead Biologist to minimize the effects that proposed landscape plants could have on native vegetation and wildlife within adjacent open space areas. Landscape plans will not include invasive plant species, as identified by the most recent version of the California Invasive Plant Inventory for the Central Valley region, as published by the California Invasive Plant Council. Landscape plans, except those for commercial and community agriculture programs, projects, and gardens, will include a plant palette composed of native or non-native, non-invasive species that do not require high irrigation rates. Each landscaping plan submitted with the maps shall require that immediately</p>	

		<p>prior to installation of common landscape improvements, container plants to be installed within 100 feet of open space shall be inspected by the project biologist for the presence of disease, weeds, and pests, including Argentine ants (<i>Linepithema humile</i>). Plants with pests, weeds, or diseases will be rejected.</p> <p>MM 4.4-7 The following provisions shall appear as notes on all tentative tract maps and site development plans and incorporated in the CC&amp;Rs:</p> <ol style="list-style-type: none"> <li>1) Intentional feeding of California condor, bald and golden eagle, and San Joaquin kit fox on the Grapevine Project is prohibited; ducks and other water fowl in designated parks may be fed.</li> <li>2) Use of anticoagulants (used for rodent control) at the Grapevine project site shall be prohibited.</li> <li>3) Rodenticides shall not be used in areas within 450 feet of any Exclusive Agriculture designated area, with the exception of areas where rodent activity threatens infrastructure or safety and when determined by the Lead Biologist that other measures, such as trapping will be ineffective.</li> <li>4) Exterior lighting shall adhere to dark sky principles and be fully shielded and directed downward in a manner that will prevent light spillage or glare.</li> <li>5) Property owners shall keep trash in covered containers that are fitted with animal- and weather-resistant lids.</li> <li>6) No new multi-use paved trails, lighting or irrigated agriculture will be permitted in the OA District.</li> <li>7) Unfenced basins shall be revegetated with native grasses to allow for grazing.</li> </ol> <p>MM 4.4-8 <b>Conservation Education and Awareness Program for Occupants.</b> Subsequent to issuance of the first building permit and prior to issuance of the first certificate of occupancy for the project site, the project proponent shall develop an environmental awareness education brochure approved by the project Lead Biologist, regarding special status species and any wildlife prohibitions and protection measures, which brochure will be provided to occupants, and shall submit covenants, conditions, and restrictions (CC&amp;Rs), which require the brochure to be updated annually and provided to occupants via mail and website through a conservation education and awareness program to be implemented by the property owners' association (POA). Copies of all educational material prepared shall be submitted to the Kern County Planning and Natural Resources Department by April 1<sup>st</sup> of each calendar year. The educational materials, including the required brochure, website and interpretive signs around the bald eagle roost, shall include the following topics and information:</p> <ol style="list-style-type: none"> <li>1) The requirement that people and their animals stay on existing trails at all times</li> <li>2) The requirement that pets be leashed at all times while in project open space and on trails</li> <li>3) The requirement that dog owners pick up and pack out their animals' feces when on trails</li> <li>4) Prohibition against intentionally feeding condor, bald eagle, golden eagle, and San Joaquin kit fox, and the unauthorized capture of all wildlife species, both of which are prohibited</li> </ol>	
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		<p>5) The dangers of microtrash and the benefits of trash receptacles fitted with animal- and weather-resistant lids</p> <p>6) Notification that native animals (e.g., coyote [<i>Canis latrans</i>], bobcat [<i>Felis rufus</i>], and mountain lion [<i>Puma concolor</i>]) are present in the area and could prey on pets, and no actions will be taken against native animals should they prey on pets allowed outdoors by their owners</p> <p>7) Required compliance with federal and state laws governing the use of pesticide and rodenticide products and restrictions on the use of anticoagulants.</p> <p>8) Prohibited behaviors related to condors such as the pursuit, capture, and harassment of condors and all other potential direct interaction with the species and the negative effects of microtrash on the species. Mandatory reporting by occupants to POA Manager of any California condors seen on or near developed areas, including any condor seen perching on structures, drinking from standing water (e.g., swimming pools), or feeding on carcasses within an estimated 1,000 feet of development.</p> <p>9) Prohibitions on the touching and collection of reptiles and amphibians.</p> <p>10) The negative impacts of off-trail activities near oak trees (<i>Quercus</i> spp.).</p> <p>The educational materials and CC&amp;Rs shall require:</p> <p>1) Interpretive and educational signage to be installed at appropriate locations informing the public about bald eagles, their habitat requirements, and their sensitivity to human disturbance during the wintering season for the species (late October through March).</p> <p>2) The POA manager may, at the request of the project biologist, restrict trail use near identified winter perch sites of bald eagles between October 15 and March 15; adequate setbacks from each perch site, considering location, viewshed, and other factors, will be determined by the biologist. Setbacks of 250 meters (820 feet) have been suggested for wintering eagles in open habitats as sufficient to buffer eagles from human activities.</p> <p>3) The POA manager may, at the request of the project biologist, restrict trail use and recreational activities within 0.25 to 0.5 mile of the viewshed of an active golden eagle nest during the nesting season (generally February 1 through July 30). Trail use may be allowed during the nesting season if the project biologist has determined that the nest has become inactive and trail use would not otherwise adversely affect golden eagles within the nest territory.</p> <p>4) Guided hunting in the southern foothills shall be allowed for ongoing resource management or pest control (e.g., feral pig eradication) in accordance with the Ranch's existing wildlife management program permitting with CDFW.</p>	

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		<p>5) In any dead cattle or other carcasses are observed, it shall be reported to the POA Manager and the Lead Biologist shall remove dead cattle, or other carcasses that are found or reported within 1,000 feet of development. Such carcasses shall be relocated to a predetermined location within an area identified for conservation in the Ranchwide Agreement or an area conserved as open space on the Ranch. The locations where carcasses shall be relocated shall be a minimum of 1,000 feet from the edge of the project footprint. Appropriate locations for transfer of carcasses include open grasslands and savannahs where condors can readily detect carcasses and easily land and take off without encountering physical obstacles such as power lines and other utility structures. Pursuant to this measure, a telephone number for reporting dead cattle shall be provided and actively maintained. Any cattle carcasses transferred to the relocation areas shall be reported to the USFWS condor group.</p> <p>6) If any California condor is observed or reported on or near developed areas (i.e., perched or on the ground within 1,000 feet of the project footprint), the POA manager must notify the U.S. Fish and Wildlife Service (USFWS) immediately. The POA manager must call the Hopper Mountain National Wildlife Refuge office (phone: 805.644.5185) and the Ventura Fish and Wildlife Office (phone: 805.644.1766).</p> <p>7) If the USFWS has data to indicate that any California condor is on the vicinity of the Grapevine area, the USFWS shall be allowed access to the project to make visual observations of the bird(s) and attempt to haze the bird away from the area. Residents and people other than USFWS-designated personnel are not authorized to haze the condors. The USFWS shall be allowed to attempt hazing as often and repeatedly as it deems necessary to prevent habituation or other injury to a condor.</p> <p>8) The POA manager may direct Tejon Ranch staff, Grapevine occupants and their guests to cease any behavior that constitutes an attractive nuisance or otherwise presents an unreasonable and avoidable danger to California condors, in consultation with the project Lead Biologist.</p> <p>9) The POA manager shall also provide for routine community maintenance activities that will include regular efforts to eliminate micro trash on and near all roads where human presence has occurred.</p> <p>MM 4.4-9 Trails.</p> <p>a) <b>Construction.</b> Prior to approval of the first final map, the project proponent will submit the final trail map for the associated designated open space and verification from the project Lead Biologist that the trail map is in substantial conformance with the trail map analyzed in the EIR (including up to 5 acres of ground disturbance for trail adjustments in the southern</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>foothills and trail/underground utility crossings across the aqueduct) and the final trail alignment avoids impacts to riparian habitat, two-striped garter snake, tricolored blackbird, oak titmouse, northern harrier, Nuttall's woodpecker, purple martin, yellow warbler, Lawrence's goldfinch (nesting habitat), black-chinned sparrow, and Buena Vista Lake shrew. No new trails will occur within 0.25 mile of an active golden eagle nest, within or outside of the viewshed of that nest. Trail alignments may be altered from the conceptual plan if the project Lead Biologist makes a determination that the revised alignment would not result in new or increased impacts than previously considered.</p> <p>b) <b>Signage.</b> At a minimum, the following information will be posted at trailheads and/or on-trail signage:</p> <ul style="list-style-type: none"> <li>i. Pets must be leashed at all times while in project open space.</li> <li>ii. Dog owners are required to pick up and pack out their animals' feces.</li> <li>iii. Intentional feeding of wildlife is prohibited.</li> <li>iv. People and their animals must stay on existing trails at all times.</li> <li>v. Access permitted only from dawn to dusk.</li> </ul> <p>Additionally, signage shall be clearly posted at the road or trail entrance to the TUMSHCP lands that is prominent and requires no admittance without permission and cites to the TUMSHCP.</p> <p>MM 4.4-10 <b>Riparian and Sensitive Natural Communities.</b> Prior to issuance of the first grading permit in each Plan Area, the project proponent shall mitigate for the loss of riparian areas, following the Conceptual Mitigation Plan for Impacts to Waters of the State for the Grapevine Project (Attachment A-3 of Appendix F), at the following rates:</p> <ul style="list-style-type: none"> <li>a. <i>Wetland Waters:</i> 2:1, including 1:1 restoration and 1:1 enhancement, of wetland waters.</li> <li>b. <i>Streams:</i> <ul style="list-style-type: none"> <li>i. 1:1 preservation of ephemeral and/or intermittent streams for permanent impacts to ephemeral non-wetland waters of the state (non-riparian)</li> <li>ii. 1:1 preservation of intermittent streams for permanent impacts to intermittent non-wetland waters of the state (non-riparian)</li> <li>iii. 1:1 restoration of intermittent streams for temporary impacts to intermittent non-wetland waters of the state (non-riparian)</li> </ul> </li> <li>c. <i>Riparian Vegetation:</i> 2:1, including 1:1 restoration and 1:1 enhancement of riparian vegetation.</li> </ul> <p>MM 4.4-11 <b>Monitoring and Enforcement.</b> Subsequent to issuance of the first building permit and prior to issuance of the first certificate of occupancy, the project proponent shall submit CC&amp;Rs as provided in MM 4.4-8 that designate the POA manager and a Lead Biologist (which functions</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>may be vested in one person), to be funded by the POA, and vest them with authority to enforce the CC&amp;Rs and require the following management activities:</p> <ul style="list-style-type: none"> <li>a. Conduct periodic maintenance patrols to remove litter, control feral cats and dogs, maintain wildlife friendly fencing, manage fire hazards.</li> <li>b. Monitor OA District to ensure no ground disturbance in the 100-foot buffer along the aqueduct other than for the trail/road/utility rights of way across the aqueduct, no irrigation, no paved trails or lighting, and to ensure all uses are consistent with allowed/prohibited uses.</li> <li>c. Monitor OA District trail use, enforce bald eagle roost buffers or golden eagle nest buffers;</li> <li>d. If overuse of trails is documented by the land manager, then, in consultation with the Lead Biologist, one or more of the following management measures will be implemented: trail closures, trail repair, increased patrols, signage, and/or fencing to restrict use.</li> <li>e. Any future open space uses involving ground disturbance shall be reviewed by the project Lead Biologist to ensure zoning and CC&amp;R restrictions are followed, ensure wildlife connectivity is maintained; listed species and riparian habitat would be avoided, if feasible. If avoidance of listed species and riparian habitat is not feasible, future permitting may be required.</li> </ul>	
Impact 4.4-2: Have a Substantial Adverse Effect on Any Riparian Habitat or Other Sensitive Natural Community Identified in Local or Regional Plans, Policies, Regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service	Potentially significant	Implement Mitigation Measures MM 4.4-1 through MM 4.4-11, as described above. Implement Mitigation Measure MM 4.3-2, as described in Section 4.3, <i>Air Quality</i> , and Mitigation Measures MM 4.9-1 through MM 4.9-7, as described in Section 4.9, <i>Hydrology and Water Quality</i> .	Significant and unavoidable
Impact 4.4-3: Have a Substantial Adverse Effect on Federally Protected Wetlands as Defined by Section 404 of the Clean Water Act (Including, but not Limited to, Marsh,	No Impact	No mitigation measures are required.	No Impacts

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Vernal Pool, Coastal, etc.) Through Direct Removal, Filling, Hydrological interruption, or Other Means			
Impact 4.4-4: Interfere Substantially with the Movement of any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors, or Impede the Use of Native Wildlife Nursery Sites	Potentially Significant	Implement Mitigation Measures MM 4.4-1 through MM 4.4-11, as described above.	Less than significant
Impact 4.4-5: Conflict with Any Local Policies or Ordinances Protecting Biological Resources, Such as a Tree Preservation Policy or Ordinance	Potentially significant	Implement Mitigation Measures MM 4.4-1 through MM 4.4-11, as described above. Implement Mitigation Measure MM 4.3-2, as described in Section 4.3, <i>Air Quality</i> , Mitigation Measures MM 4.8-10 through MM 4.8-21, as described in Section 4.8, <i>Hazards and Hazardous Materials</i> , and Mitigation Measures MM 4.9-1 through MM 4.9-7, as described in Section 4.9, <i>Hydrology and Water Quality</i> .	Less than significant
Impact 4.4-6: Conflict with the Provisions of an Adopted Habitat Conservation Plan, Natural Communities Conservation Plan, or other Approved Local, Regional, or State Habitat Conservation Plan	Less than significant	No mitigation measures are required.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Impact 4.4-7: Contribute to Cumulative Biological Resources Impacts	Significant	Implement Mitigation Measures MM 4.4-1 through MM 4.4-11, as described above, Mitigation Measure MM 4.3-2, as described in Section 4.3, <i>Air Quality</i> , Mitigation Measures MM 4.8-10 through MM 4.8-21, as described in Section 4.8, <i>Hazards and Hazardous Materials</i> , and Mitigation Measures MM 4.9-1 through MM 4.9-7, as described in Section 4.9, <i>Hydrology and Water Quality</i> .	Significant and unavoidable
<b>Cultural Resources</b>			
Impact 4.5-1: Cause a Substantial Adverse Change in the Significance of a Historical or Archaeological Resource as Defined in Section 15064.5	Potentially Significant	<p>MM 4.5-1 Prior to the issuance of grading permits, the project proponent shall retain a qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology, to carry out all mitigation measures related to archaeological and historical resources. Proof of hire shall be submitted to the Kern County Planning and Natural Resources Department.</p> <p>MM 4.5-2 Prior to the issuance of grading permits, the project proponent shall retain a qualified paleontologist to carry out all mitigation measures related to archaeological and historical resources. Prior to the start of any ground disturbing activities, the qualified paleontologist shall conduct a Paleontological Resources Awareness Training program for all construction personnel working on the project. This may be conducted in conjunction with the required 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 artifact collecting or intentional disturbance of paleontological resources.</p> <p>MM 4.5-3 Prior to the issuance of grading or building permits, and for the duration of construction activities, a Construction Worker Environmental and Cultural Awareness Training Program shall be provided to all construction personnel prior to commencing work at the project site. The training shall be prepared and conducted by the qualified archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology, with the assistance of the Tejon Indian Tribe. The training shall be prepared and conducted by the qualified archaeologist. The training may be in the form of a video. The training may be discontinued when ground disturbance is completed or suspended, but must resume when ground-disturbing activities resume. A sticker shall be placed on hard hats indicating that the worker has completed the cultural training program. Construction personnel shall not be permitted to operate equipment within the construction area unless they have attended the training and are wearing hard hats with the required sticker. A copy of the training transcript and/or training video, as well as a list of the names of all personnel who attended the training and copies of the signed acknowledgement forms shall be submitted to the</p>	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>Kern County Planning and Natural Resources Department. The purpose of the Cultural Awareness Training Program shall be to inform construction personnel of the types of cultural resources that may be encountered during construction, and to bring awareness to personnel of actions to be taken in the event of a cultural resources discovery. This may include: a discussion of applicable cultural resources statues, regulations and related enforcement provisions; an overview of the prehistoric and historic environmental setting and context, as well as current cultural information regarding local tribal groups; samples or visuals of artifacts that might be found in the project area; and a discussion of what prehistoric and historic archaeological deposits look like at the surface and when exposed during construction. The cultural training program shall include instruction that in the event cultural resources are unearthed during ground-disturbing activities, the project operator shall cease any ground disturbing activities within 100 feet of the find until it can be evaluated by a qualified archaeologist and a Native American monitor. The cultural training program shall also indicate that the qualified archaeologist and Native American monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of the find until the qualified archaeologist and Native American monitor has evaluated the find, determined whether the find is culturally sensitive, and designed an appropriate short-term and long term treatment plan.</p> <p>A Native American and/or archaeological monitor shall be present during all initial surface grubbing, initial ground surface grading and any excavation greater than one-half foot in depth. If no subsurface Native American or archaeological remains are identified during that initial grading, continuous monitoring will no longer be required but a Native American and/or archaeological monitor shall spot-check all additional subsurface excavations at least once a week for the duration of the grading and excavation or until monitor deems site clear.</p> <p>MM 4.5-4 The following significant and potentially significant Cultural Resource sites shall be passively preserved in-place in dedicated or retained open-space or exclusive agricultural land: TP-SITE-03, TP-SITE-05, TP-SITE-11, TP-SITE-20, TP-SITE-21, TP-SITE-23, TP-SITE-24, TP-SITE-25, TP-SITE-26, TP-SITE-27, TP-SITE-28, TP-SITE-29, TP-SITE-30, TP-SITE-31, TP-SITE-32, TP-SITE-33, TP-SITE-34, TP-SITE-35, TP-SITE-36, TP-SITE-37, TP-SITE-38, TP-SITE-39, TP-SITE-40, TP-SITE-41, TP-SITE-42, TP-SITE-43, TP-SITE-44, TP-SITE-45, TP-SITE-46, TP-SITE-47, TP-SITE-48, TP-SITE-49, TP-SITE-52, TP-SITE-54, TP-SITE-58, TP-SITE-59, P-15-9629/ KER-5855, P-15-10845/ CA-KER-6306, P-15-10846/ CA-KER-6307, P-15-7743/ CHL 300, and P-15-007674 – CHL 133 (a significant district consisting of the following contributing significant sites: P-15-810/ KER-810, P-15-2185/ CA-KER-2185). Should passive preservation in place not be feasible based on infrastructure siting or other development needs, then the site(s) shall be preserved in place and capped with geotextile matting and fill. Utilities that may overlie the</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>geotextile matting and fill will be embedded within the fill cap, above the geotextile mat, or routed southeast of the site. Alternatively, the project proponent may, in consultation with the Tejon Indian Tribe, a qualified archaeologist and Native American monitor, excavate the Cultural Resource and relocate the feature to nearby property owned and controlled by the Tejon Indian Tribe. However, notwithstanding the foregoing, in no event shall the two Cultural Resource sites identified as CA-KER-810 and CA-KER-2185 be capped with geotextile matting and fill, or be excavated and relocated; instead, these two sites shall be passively preserved in-place in dedicated or retained open-space or exclusive agricultural land, irrespective of infrastructure siting or other development needs. To ensure that additional remains are not uncovered and disturbed during development, the site and a 25-meter buffer shall be staked prior to any construction or grading within 100 meters of the site. Preservation and staking of these sites shall be overseen by a qualified archeologist and a Native American monitor to preserve the confidentiality of the protected resource, and shall be depicted on any grading or improvement plan (e.g., for a trail) within 100 meters of the site. A Native American monitor shall be present during any initial ground disturbance grading activity for areas located within 100 meters of the site.</p> <p>MM 4.5-5 The following significant Cultural Resource sites located within the development area of the Grapevine Specific and Community Plan shall be preserved in place in a pocket park or other appropriate open space area, with appropriate geotextile capping and fill: TP-SITE-15, TP-SITE-17, and TP-SITE-18. Preservation and staking of these sites shall be overseen by a qualified archeologist and a Native American monitor to preserve the confidentiality of the protected resource, and shall be depicted on any grading or improvement plan (e.g., for a trail) within 100 meters of the site. Alternatively, the project proponent may, in consultation with the Tejon Indian Tribe, a qualified archaeologist and Native American monitor, excavate the Cultural Resource and relocate the feature to nearby property owned and controlled by the Tejon Indian Tribe. A Native American monitor shall be present during the initial ground disturbance grading activity for areas located within 100 meters of such sites.</p> <p>MM 4.5-6 The project proponent shall continuously comply with the following: In the event that unanticipated cultural resources are encountered during the course of grading or construction, the project operator/contractor shall cease any ground disturbing activities within 50 feet of the find. Cultural resources may include prehistoric archaeological materials such as flaked and ground stone tools and debris, shell, bone, ceramics, and fire-affected rock, as well as historic materials such as glass, metal, wood, brick, or structural remnants. A qualified archaeologist and a Native American monitor shall evaluate the resource and recommend appropriate treatment measures, as appropriate.</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		Per California Environmental Quality Act (CEQA) Guidelines Section 15126.4(b)(3), project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if resources cannot be avoided, additional treatment measures shall be developed in consultation with Kern County, and may include testing and evaluation or data recovery excavation. Kern County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthened cultural resources if the resources are prehistoric or Native American in nature. The qualified archaeologist shall prepare a report documenting evaluation and/or additional treatment of the resource. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to the Southern San Joaquin Valley Information Center.	
Impact 4.5-2: Directly or Indirectly Destroy a Unique Paleontological Resource or Site or Unique Geologic Feature	Potentially significant	<p>MM 4.5-7 Prior to the issuance of grading permits, the project proponent shall retain a qualified paleontologist to prepare a Paleontological Resource Monitoring and Mitigation Plan for implementation during construction and operations. The Plan shall be submitted to the Kern County Planning and Natural Resources Department for review prior to the start of grading or construction and shall include the following:</p> <ul style="list-style-type: none"> <li>a. Procedures for the discovery, recovery, and salvage of paleontological resources encountered during construction, if any, in accordance with standards for recovery established by the Society of Vertebrate Paleontology;</li> <li>b. Identification and mapping of specific areas of high and undetermined paleontological potential that will be monitored during construction;</li> <li>c. Verification that the project proponent has an agreement with a recognized museum repository (e.g., the San Diego Natural History Museum or the University of California Museum of Paleontology), for the disposition of recovered fossils and that the fossils shall be processed (e.g., cleaned, repaired, identified, catalogued) prior to submittal to the repository as required by the repository; and</li> <li>d. Field activities shall be documented in a complete set of the daily monitoring logs that shall be kept on-site throughout the earthmoving activities. The logs shall be made available for inspection and shall be keyed to a location map to indicate the area monitored, the date, the assigned personnel, and the results of the monitoring activities, including rock unit encountered, fossil specimens recovered, and associated specimen data, as well as corresponding geologic and geographic site data. Within 90 days of the completion of the paleontological monitoring, a monitoring report, with an appended, itemized inventory of specimens, shall be submitted to Kern County.</li> </ul> <p>MM 4.5-8 Prior to the commencement of construction activities, the project proponent shall provide for a qualified paleontologist to provide construction personnel with training on implementation of the</p>	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>Paleontological Resource Monitoring and Mitigation Plan and, specifically, procedures to be followed in the event that a fossil site or fossil occurrence is encountered during construction. An information package shall be provided for construction personnel not present at the initial preconstruction briefing.</p> <p>MM 4.5-9 Prior to the commencement of construction activities, the project proponent shall retain a qualified paleontologist to implement the approved Paleontological Resource Monitoring and Mitigation Plan as follows:</p> <ol style="list-style-type: none"> <li>a. Monitoring shall occur during ground-disturbing activities in areas identified as having deposits with a high or undetermined paleontological potential rating, either at the surface or at depth (greater than 3 to 5 feet below natural ground surface). Monitoring shall consist of inspection of sedimentary exposures for contained fossil remains, and appropriate documentation of observed geologic and stratigraphic features in field notes and photographs.</li> <li>b. In the event fossils are discovered, fossils determined to be significant shall be salvaged using appropriate methods. If salvage of a large or unusually productive fossil discovery is warranted, earthmoving activities shall be diverted temporarily around the fossil site, and a recovery crew shall be mobilized to remove the material as quickly as possible. The paleontological monitor shall photograph and draw stratigraphic profiles of relevant cut surfaces, and if appropriate take samples for analysis of microfossils, dating, or other specified purposes, in accordance with the research design. Once the fossil discovery or an appropriate representative sample (as determined by the Project Paleontologist) of the fossil discovery has been salvaged, earthmoving activities may resume in the discovery area.</li> <li>c. All recovered specimens deemed significant shall undergo preparation and curation into a museum repository, in accordance with the standards of the repository. All preparation and curation tasks may be carried out by a qualified paleontologist, or submitted to a laboratory acceptable to the selected museum. Preparation shall include repair and cleaning of specimens to a point of identification, including, if appropriate, screenwashing of sediments to recover smaller fossil remains. Specimens shall be sorted into species lots, and identified to the lowest reasonable taxonomic level. Specimens shall then be curated into a museum repository. In accordance with museum repository standards, curation may involve cataloguing of species lots, painting of species lot numbers on individual specimens, and organizational tasks. If appropriate and in agreement with the research design, samples shall be submitted to a laboratory, acceptable to the selected museum, for dating, microfossil analysis, pollen analysis, and/or other suitable analyses.</li> </ol>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Impact 4.5-3: Disturb any Human Remains, Including those Interred Outside of Formal Cemeteries	Potentially significant	MM 4.5-10 The project proponent shall continuously comply with the following: If human remains are uncovered during project construction, the project proponent shall immediately halt work and contact the Kern County Coroner to evaluate the remains, and follow the procedures and protocols set forth in Section 15064.5 (e)(1) of the CEQA Guidelines. If the County coroner determines that the remains are Native American, the Native American Heritage Commission shall be notified, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by AB 2641). Per Public Resources Code 5097.98, the landowner shall ensure that the 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, as prescribed in this section (PRC 5097.98), with the most likely descendent regarding their recommendations, if applicable, taking into account the possibility of multiple human remains.	Less than significant
Impact 4.5-4: Contribute to Cumulative Cultural Resources Impacts	Significant	Implement Mitigation Measures MM 4.5-1 through MM 4.5-10, as described above.	Less than significant
<b>Geology and Soils</b>			
Impact 4.6-1: Expose People or Structures to Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving the Rupture of a Known Earthquake Fault	Potentially significant	<p>MM 4.6-1 Applicants for building permits for all structures constructed on the site shall comply with applicable seismic risk protection measures in the California Building Code, as confirmed with building permit plans submitted to the Kern County Public Works Department for review and approval.</p> <p>MM 4.6-2 Prior to recordation of a tentative tract map or site plan for infrastructure improvements sensitive to ground rupture, and habitable structures, that are located east of the defined setback for active faults as depicted on Figure 4.6-4, <i>Landslides, Debris Flow Hazard, and Faulting Map</i>, the project proponent shall retain a qualified geological/geotechnical consultant to prepare a Seismic Report for submittal to and approval by the County. The Seismic Report shall include an additional fault investigation, and based on the investigation outcome, identify any necessary additional seismic safety design improvements for such infrastructure improvements and habitable structures.</p> <p>MM 4.6-3 The project proponent shall include in all approved final tract maps, commercial site development plans, and grading plans, information identifying the location of parcels subject to geologic hazards (seismicity, landslide, debris flow, liquefaction hazards) identified in the geologic hazard reports required as follows:</p> <ul style="list-style-type: none"> <li>• Seismic Report to identify any necessary additional seismic safety design improvements for infrastructure and habitable structures;</li> <li>• Landslide Hazards Report to define the extent of the landslide hazards and specific appropriate geotechnical improvements required;</li> </ul>	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<ul style="list-style-type: none"> <li>• Debris Flow Report to define the extent of the debris flow hazards and specify appropriate geotechnical improvements; and</li> <li>• Liquefaction-Collapsible Soil Report to define the extent potential for localized liquefaction, collapsible or expansive soils hazards, and shall specify appropriate geotechnical improvements.</li> </ul>	
Impact 4.6-2: Expose People or Structures to Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Strong Seismic Ground Shaking	Potentially significant	Implement Mitigation Measures MM 4.6-1 through MM 4.6-3, as described above.	Less than significant
Impact 4.6-3: Expose People or Structures to Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Seismic-related Ground Failure, Including Liquefaction	Potentially significant	Implement Mitigation Measures MM 4.6-1 through MM 4.6-3, as described above. MM 4.6-4 Prior to final recordation of a tentative tract map or site plan approval in project areas subject to landslide hazards, the project proponent shall retain a qualified geologic/geotechnical consultant to perform focused geotechnical studies (Landslide Hazards Report) to define the extent of the landslide hazards and specify appropriate geotechnical improvements to be made, such as but not limited to landslide repairs, buttresses or other site specific designs necessary to avoid the hazards. MM 4.6-5 Prior to recordation of a tentative tract map or site plan approval for development of improvements in project areas subject to landslide and debris flow hazards as depicted on Figure 4.6-4, <i>Landslides, Debris Flow Hazard, and Faulting Map</i> , the project proponent shall retain a qualified geologic/geotechnical consultant to perform focused geotechnical studies (Debris Flow Report) to define the extent of the debris flow hazards and specify appropriate geotechnical improvements to be made, such as but not limited to a combination of avoidance of high hazard areas, construction of earthen berms designed to deflect flows to open space areas or to impound debris, or by construction of appropriately-sized debris retention basins that will intercept debris flows at the edges of proposed development. MM 4.6-6 Maintenance of landslide and debris flow protection improvements located in common areas, including monitoring and sediment removal or other repairs as needed, will be the responsibility of the proposed Geologic Hazard Abatement District (GHAD) or similar entity acceptable to the County. MM 4.6-7 Prior to final recordation of a tentative tract map or site plan approval for development of improvements in project areas subject to collapsible soils as depicted on Figure 4.6-5, <i>Collapsible Soils</i> , the project proponent shall retain a qualified geologic/geotechnical consultant	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		to perform focused geotechnical studies (Liquefaction-Collapsible Soil Report) to define the extent potential for localized liquefaction, collapsible or expansive soils hazards, and shall specify appropriate geotechnical improvements to be made, such as but not limited to a combination of avoidance of high hazard areas, removal and replacement of susceptible soils with engineered fill, or by presoaking and/or surcharge preloading of collapsible soils to induce densification prior to construction of improvements.	
Impact 4.6-4: Expose People or Structures to Substantial Adverse Effects, Including the Risk of Loss, Injury, or Death Involving Landslides	Potentially significant	Implement Mitigation Measures MM 4.6-1 through MM 4.6-7, as described above.	Less than significant
Impact 4.6-5: Result in Substantial Soil Erosion or Loss of Topsoil	Potentially significant	Implement Mitigation Measures MM 4.6-1 through MM 4.6.7, as described above, and Mitigation Measure MM 4.9-1, as described in Section 4.9, <i>Hydrology and Water Quality</i> . MM 4.6-8 The project proponent shall include in all approved final tract maps and site plans a figure that shows the location of surface water drainages, including notes on the figure that describe or refer to applicable surface water drainage and creek erosion protection measures as required by applicable State laws and regulations, and the Ordinance Code of Kern County including, for example construction stormwater management and pollution prevention plans to be implemented and enforced as part of the grading permit and construction process. All grading plans and building permits shall require compliance with such State and County requirements.	Less than significant
Impact 4.6-6: Be Located on a Geologic Unit or Soil That Is Unstable, or That Would Become Unstable as a Result of the Project, and Potentially Result in On- or Off-site Landslide, Lateral Spreading, Subsidence, Liquefaction, or Collapse	Potentially significant	Implement Mitigation Measures MM 4.6-1 through MM 4.6-8, as described above.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Impact 4.6-7: 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	Implement Mitigation Measures MM 4.6-1 through MM 4.6-8, as described above.	Less than significant
Impact 4.6-8: Have Soils Incapable of Adequately Supporting the Use of Septic Tanks or Alternative Wastewater Disposal Systems Where Sewers Are Not Available for the Disposal of Wastewater	Less than significant	The project would comply with the goals, policies, and implementation measures of the KCGP as well as the TCWD, Kern County Health Department, and Central Valley RWQCB design requirements. No additional mitigation measures are proposed.	Less than significant
Impact 4.6-9: Contribute to Cumulative Geologic and Soils Impacts	Potentially significant	Implement Mitigation Measure MM 4.6-1 through MM 4.6-8, as described above, and Mitigation Measure MM 4.9-1, as described in Section 4.9, <i>Hydrology and Water Quality</i> .	Less than significant
<b>Greenhouse Gas Emissions</b>			
Impact 4.7-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, That May Have a Significant Impact on the Environment	Potentially significant	MM 4.7-1 <b>Comply with Applicable Regulations and Rules.</b> The project would be required to comply with all applicable state and San Joaquin Valley Air Pollution Control District (SJVAPCD) Rules and Regulations including, but not limited to: 1. <b>Quantified GHG Reductions (Evaluated in CalEEMod):</b> a) Pavley Motor Vehicle Standards (AB 1493) b) Low Carbon Fuel Standard (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 7, Section 95480 et seq.) c) Title 24 (part 6 [Energy Code] and part 11 [CALGreen Code]) of the California Code of Regulations d) Renewable Portfolio Standard (SB X1 2 and SB 350) e) Wood Burning Fireplaces and Wood Burning Heaters (SJVAPCD Rule 4901) f) Solid Waste Diversion (AB 341) and statewide reduction in potable urban water usage of 25 percent relative to water use in 2013 (Executive Order B-29-15) g) Model Water Efficient Landscape Ordinance (MWEL0) (California Code of Regulations, Title 23, Division 2, Chapter 2.7)	Significant and unavoidable

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>h) Kern County Code of Ordinances – Landscaping Requirements and Water Efficient Landscaping (Kern County Code of Ordinances, Title 19, Chapter 19.86, Sections 19.86.050 and 19.86.060)</li> <li>i) California Water Code (Division 6, Part 2.10, Sections 10910–10915)</li> </ul> <p><b>2. Additional GHG Reductions</b></p> <ul style="list-style-type: none"> <li>a) EPA and NHTSA GHG and CAFE standards for passenger cars, light-duty trucks, and medium-duty passenger vehicles (75 FR 25324–25728 and 77 FR 62624–63200) and for medium- and heavy-duty vehicles (76 FR 57106–57513)</li> <li>b) Cap-and-Trade Program for Electricity, Stationary Sources, and Fuels (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10, Article 5, Section 95801 et seq.)</li> <li>c) Advanced Clean Cars Program (California Code of Regulations, Title 13, Division 3, Chapter 1, Articles 1, 2, 6 (parts); Chapter 2, Articles 1, 2.1, 2.3, 2.4 (parts); Chapter 4.4 (parts); Chapter 8 (parts).</li> <li>d) Under Inflated Vehicle Tires (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 8, Section 95550 et seq.)</li> <li>e) Heavy-Duty Vehicle Greenhouse Gas Emission Reduction Regulation (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 1, Section 95300 et seq.)</li> <li>f) Management of High Global Warming Potential Refrigerants for Stationary Sources (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 5.1, Section 95380 et seq.)</li> <li>g) Small Containers of Automotive Refrigerant (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 5, Section 95360 et seq.)</li> <li>h) High-Global Warming Potential Greenhouse Gases in Consumer Products (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 8.5, Article 2)</li> <li>i) CALGreen Code as Adopted by the Building Standards Commission (California Code of Regulations, Title 24, Part 11 Emergency Building Standard DSA-SS EF-02/15)</li> <li>j) California Lighting Efficiency and Toxics Reduction Act (AB 1109 of 2007, Stats. 2007, ch. 534) and implementing regulations. (California Code of Regulations, Title 20, Division 2, Chapter 4, Article 4)</li> <li>k) Executive Order B-29-15 (April 1, 2015) (SWRCB mandatory water reductions)</li> <li>l) CARB In-Use Off-Road Diesel Vehicle Regulation (California Code of Regulations, Title 13, Division 3, Chapter 9, Article 4.8)</li> </ul>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<ul style="list-style-type: none"> <li>m) CARB In-Use On-Road Heavy-Duty Diesel Vehicles Regulation (Truck and Bus Regulation) (California Code of Regulations, Title 13, Division 3, Chapter 1, Article 4.5)</li> <li>n) CARB Landfill Methane Control Measure (California Code of Regulations, Title 17, Division 3, Chapter 1, Subchapter 10, Article 4, Subarticle 6)</li> <li>o) Mandatory Commercial Recycling (AB 341 of 2011, Statutes of 2011, Ch. 476)</li> <li>p) Million Solar Roofs Program (Senate Bill 1 of 2006, Statutes of 2006, Chapter 132)</li> <li>q) California Solar Initiative- Thermal Program (California Public Utilities Commission Decision 10-01-022, January 21, 2010)</li> <li>r) Waste Heat and Carbon Emissions Reduction Act (Statutes of 2007, Chapter 713; Statutes of 2008, Chapter 253)</li> <li>s) Emergency State Water Board Regulations (California Code of Regulations, Title 23, Division 3, Chapter 2, Article 22.5)</li> <li>t) Executive Order B-37-16 (May 9, 2016) (water conservation regulations)</li> <li>u) Water Conservation Act of 2009 (Senate Bill X7-7, Statutes of 2009, Chapter 4)</li> <li>v) Water Reclamation Requirements for Recycled Water Use (SWRCB Order WQ 2016-0068-DDW)</li> <li>w) Regulations for Groundwater Replenishment Using Recycled Water (California Code of Regulations, Title 22, Division 4, Chapter 3)</li> <li>x) Policy for Water Quality Control for Recycled Water (SWRCB Resolution No. 2009-0011, as amended by Resolution No. 2013-0003)</li> </ul> <p>MM-4.7-2 <b>Greenhouse Gas Emissions Reduction Measures.</b> Prior to approval of any final tentative tract map or commercial/industrial site development plan, or at building permit as appropriate and acceptable to Kern County, the project proponent shall provide evidence to the Kern County Planning and Natural Resources Department that the following menu of greenhouse gas emissions reduction measures are being implemented in conformance with the Grapevine Specific and Community Plan. Building design standards shall be made conditions of approval of any commercial/industrial site plan or included as notes on any final recorded tentative tract map.</p> <ul style="list-style-type: none"> <li>1) Require service fleet vehicles to be powered with alternative fuel technology where feasible, as determined by the individual project applicants.</li> <li>2) Designate at least two locations with adequate pedestrian, bicycle, and parking facilities for off-site transit connection service.</li> <li>3) Provide multiple travel options for residents, workers, and visitors through a comprehensive multi-modal network including, but not limited to, transit, paths, trails, and connections integrated into the overall circulation network.</li> </ul>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<ol style="list-style-type: none"> <li>4) Ensure that higher density residential, commercial and offices and other high-demand uses are located near, and provide connection through Transit Management Association measures to, transit hubs.</li> <li>5) Locate two transit hubs in the village centers on both sides of Interstate 5 (I-5) that would be accessible by local and regional transit routes and community multi-modal paths and trails.</li> <li>6) Establish a Transit Management Association to promote, manage, and monitor transit and mobility services and infrastructure, as further described in Section 4.16, <i>Transportation and Traffic</i>.</li> <li>7) Promote alternative fuels for transit system, if available.</li> <li>8) Encourage use of best feasible alternative fuel technology to be used in homeowners association, refuse fleet, and other community service vehicles.</li> <li>9) Provide a framework for a community-wide parking plan that is based on parking demand and need.</li> <li>10) Provide preferential parking for carpool, shared, electric, and hydrogen vehicles.</li> <li>11) Require builders to install broadband infrastructure or other communication technologies that encourage telecommuting and working from home.</li> <li>12) Integrate traffic calming measures into the community-wide circulation network to promote reduced speeds and encourage pedestrian and bicycle trips.</li> <li>13) Provide sidewalks and crosswalks at all streets (along with general pedestrian connectivity throughout project) to encourage pedestrian traffic and offer an alternative to vehicle trips.</li> <li>14) Construct a multi-purpose internal trail system that includes off-road bikeways within the street right-of-way (paseos) and within a greenway system.</li> <li>15) Incorporate natural gas or propane hookups, electrical outlets on patios, and prohibit wood-burning fireplaces.</li> <li>16) Equip a minimum of 70 percent of public and community pools and spas with active solar water heating systems where heating is necessary or desired.</li> <li>17) Provide all single-family homebuyers with the option to include a photovoltaic array system as a home design feature.</li> <li>18) Implement energy-efficient design practices such as high-performance glazing, Energy Star compliant systems and appliances, radiant heat roof barriers (including but not limited to high-albedo white thermoplastic polyolefin roof membrane), high efficient HVAC with hot-gas reheat, insulation on all pipes, programmable thermostats, solar access, shading of HVAC systems from direct sunlight, use of formaldehyde-free insulation, use of recycled-content gypsum board, sealed ducts, orientation of building and incorporation of landscaping to</li> </ol>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>maximize passive solar (heating during cool seasons, and minimize heat gain during hot season), and designs that take advantage of prevailing winds.</p> <p>19) Prohibit use of chlorofluorocarbon refrigerants in commercial buildings.</p> <p>20) Ensure recycling of construction debris and waste through administration by an on-site recycling coordinator and presence of recycling/separation area, as described in Section 4.14, <i>Public Services</i>, and by maintaining on the Grapevine Community website information about recycling, and the availability of and potential uses for recycled materials, such as the use of salvaged and recycled content materials for hard surface and non-plant landscaping materials.</p> <p>21) Establish and operate a community waste recycling program including education and outreach, recycled waste pickup and drop-off services, as described in Section 4.14, <i>Public Services</i>.</p> <p>22) Implement a water wise program that includes all feasible measures to reduce indoor water use and associated energy use (e.g., for interior fixtures, require tankless water heaters and low-flow plumbing and fixtures), as described in Section 4.17, <i>Utilities and Service Systems</i>.</p> <p>23) Implement landscape standards that include irrigation standards to maximize efficiency and decrease water use and waste. Prepare and distribute landscape design guidelines to minimize the use of exterior water by requiring each homeowner to select from landscape materials that are within the Maximum Applied Water Allowance budget that will be assigned to each lot or home, as described in Section 4.17, <i>Utilities and Service Systems</i>.</p> <p>24) Use recycled water from on-site wastewater treatment plant(s) as a permanent source of water for landscaped common areas and other authorized uses, as described in Section 4.17, <i>Utilities and Service Systems</i>.</p> <p>25) Use recycled water for irrigation of 50 percent of commercial landscape areas, as described in Section 4.17, <i>Utilities and Service Systems</i>.</p> <p>26) Use native species and drought tolerant species for a minimum of 75 percent of the ornamental plant palette in non-turf areas for all commercial, industrial, common and public areas, and residential front-yard landscaping to minimize water demand, as described in Section 4.17, <i>Utilities and Service Systems</i>.</p> <p>27) Minimize turf areas and encourage alternative ground covers (20 percent maximum turf in landscaped commercial areas and 45 percent maximum turf in residential front yard landscaping), as described in Section 4.17, <i>Utilities and Service Systems</i>.</p> <p>28) Design irrigation systems to conform to the hydrozones of the landscape design plan and optimize water efficiency by matching plant type, utilizing drip or subsurface irrigation</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>wherever possible, and applying water at agronomic rates, as described in Section 4.17, <i>Utilities and Service Systems</i>.</p> <p>29) Require "smart" controllers, such as weather-based irrigation controllers or other self-adjusting irrigation controllers, for all irrigation systems that will accommodate all aspects of the landscape and irrigation design plans, as described in Section 4.17, <i>Utilities and Service Systems</i>.</p> <p>30) Include in street design proposals for County review technically feasible (given expected future uses) and legally feasible (given applicable ordinances and other requirements) street designs that include permeable pavement, groundcovers, or other measures to reduce use of concrete and asphalt.</p> <p>31) Require garages in single family homes to be wired with a 240 kV outlet, suitable for future electric car charging devices or service.</p> <p>32) Require non-residential uses to have at least one electric vehicle charging station for every 50,000 square feet of gross-leasable areas.</p> <p>33) Require one electric vehicle charging station for every 15 dwelling units.</p> <p>34) The TMA shall work with automotive dealers to help promote CNG electric and hybrid electric vehicles.</p> <p>35) Incorporate electric truck charging capabilities in loading docks by installing a 240 kV outlet in the vicinity of the loading dock.</p> <p>36) The project applicant shall maintain a Grapevine Community website that includes, but is not limited to, information about greenhouse gas (GHG) reduction opportunities to help educate project residents, as well as schools, other agencies, and businesses with facilities on the project site.</p> <p>37) Include on the Grapevine Community website information about rebates and low-interest loans to residents that make energy-saving improvements to their homes.</p> <p>38) Site and design building to take advantage of daylight where feasible and consistent with building purpose.</p> <p>39) Use trees, landscaping and sunscreens to west and south exterior building walls to reduce energy use where feasible and consistent with building and site purpose, and consistent with other applicable requirements such as encouraging higher density and restricted plant palette.</p> <p>40) Install cool pavements if approved by Caltrans and County Roads to roadway uses, provided that road installation and maintenance durability and costs are comparable to existing approved roadway materials (since early replacements or more intensive repair result in higher GHG emissions).</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		41) Require use of removal covers for pools and spas. ("Automatic" covers may result in accidental drownings or other injuries; efficient pumps and motors for pools and spas are already required under applicable Building Energy Efficiency Standards (Cal. Code Regs., Title 24, Part 6 §§ 110.3, 110.4, 110.5) and Title 20 Standards (Cal. Code Regs., Title 20 §§ 1605.1(g), 1605.3(g)). 42) Require use of CARB-approved or electric landscape maintenance equipment for public common areas. 43) Include on the Grapevine Community website information about the air quality and greenhouse gas benefits of electric landscape maintenance equipment. 44) Limit the hours of community-managed lighting on public streets to midnight unless later lighting will advance public safety and walkability goals. 45) Educational information on energy and water conservation and efficiency for project residents, customers, tenants and large energy users shall be maintained on the Grapevine community website. 46) Include in Grapevine Community website information about energy conservation and financial incentive programs, and about potential energy technology systems that may be suitable for larger commercial and institutional users such as combined heat and power systems. 47) All single family homes are required to be wired for a 240 kv line to accommodate electric vehicle charging uses and devices. MM-4.7-3 <b>Greenhouse Gas Emissions Reduction Reporting on Compliance with 29 Percent Reduction Threshold.</b> Prior to the issuance of building permits, a focused greenhouse gas report shall be submitted that identifies the measures (regulatory or applicant-implemented, in all sectors relevant to project GHG emissions, including but not limited to cleaner fuels and more efficient cars and trucks, cleaner energy from the grid, more energy-efficient buildings materials and standards used onsite, emission offsets, applicant-funded offsite energy conservation improvements to existing homes and structures, etc.) to confirm that the project is reducing by 29 percent in relation to business as usual (2008) its carbon dioxide (CO <sub>2</sub> ) equivalent emissions as quantified in the Environmental Impact Report consistent with the San Joaquin Valley Air Pollution Control District Greenhouse Gas Guidance (SJVAPCD, 2009), as applied to the final number of houses or square footage and type of commercial/industrial constructed for each site. The focused greenhouse gas report shall be submitted to the San Joaquin Valley Air Pollution Control District for review and comment regarding the methodology used to quantify greenhouse gas reductions. The report can be for an individual house, multiple structures, or for a phase of a tract or commercial/industrial site plan.	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>MM-4.7-4 <b>Energy Conservation.</b> Prior to approval of any tentative tract map (excluding financing maps) approval or commercial site development plan, the project proponent shall provide the Kern County Planning and Natural Resources Department with an Energy Plan documenting compliance with all applicable energy conservation requirements of applicable Title 24 standards in the California Code of Regulations, including but not limited to the 2019 Title 24 standards (effective as of January 1, 2020)</p> <p>The Energy Plan shall also confirm that a menu of energy efficiency design elements, along with other design considerations and options, has been made available by the project proponent to builders, developers, and property owners as part of the internal design review process. Each developer, builder, or property owner shall incorporate the design elements required to comply with then-applicable Title 24 requirements, and select from the menu or implement other available technologies as may be needed to reduce energy consumption 15% below 2016 Title 24 requirements.</p> <p>All provisions outlined in the approved Energy Plan shall be either conditions of approval for any commercial/industrial site plan or included as notes on all final subdivision maps.</p>	
Impact 4.7-2: Conflict with an Applicable Plan, Policy or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases	Less than significant	No mitigation is required.	Less than significant
Impact 4.7-3: Cumulative Greenhouse Gas Emissions Impacts	Potentially significant	Implement Mitigation Measures MM 4.7-1 through MM 4.7-4, as described above.	Significant and unavoidable

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>MM 4.7-5: Exterior Lighting Plan. An Exterior Lighting Plan shall be prepared by an electrical engineer who is registered in the State of California, and approved by the County prior to the submittal of each building permit. The Lighting Plan shall apply to all proposed structures and for development areas that border natural open space resources.</p> <p>The Lighting Plan shall be consistent with County's Outdoor Lighting Dark Skies Ordinance (Chapter 19.81 of the Zoning Code) and shall provide guidelines for the outdoor lighting to be used throughout the project site. Final lighting orientation and design shall be approved by the County. The Lighting Plan shall include, but not be limited to, the following:</p> <ul style="list-style-type: none"> <li>a. All lighting within 300 feet of natural open space areas shall only be implemented where needed for safety and shall be directed away from these areas and shielded so that light is not directed into open space or riparian areas. Where possible, these safety lights shall be motion sensor activated with infrared light sensors to prevent daytime lighting.</li> <li>b. Mercury vapor and halide lighting shall not be used on the perimeter of the developed areas or adjacent to designated open space.</li> <li>c. Illumination levels should be compatible with the character and use of surrounding development as determined by national lighting organizations. The Illuminating Engineering Society of North America publishes recommendations for the lighting industry that include illumination levels for outdoor lighting.</li> <li>d. Low-pressure sodium lighting fixtures or flashing lights shall not be used except in emergency situations.</li> <li>e. Exterior lighting standards and fixtures shall be located and designed to minimize direct glare beyond the site boundaries. Lighting shall be fully shielded and directed downwards to confine light spread solely within necessary locations. Illumination or glare from the exterior lighting system onto adjacent properties or streets should be minimized.</li> <li>f. Security lighting fixtures shall not project above the roof line of the building on which they are mounted.</li> <li>g. Where applicable, time-control devices shall be utilized on exterior lighting sources. Street, parking lot, and structural lighting fixtures shall provide adequate illumination for safety and comfort of vehicular and pedestrian traffic while minimizing light spillover.</li> </ul>	
		<p>MM 4.7-6: On-Site Renewable Energy. Applications for a tentative tract map, parcel map (except financing map), or commercial site plan review shall include plans and analysis to demonstrate 50% of the project's anticipated electrical energy demand at buildout shall be satisfied from on-site renewable energy generation. Subsequent building permit applications shall include plans identifying renewable energy source and specifications, or location of renewable source if not located on a specific building pad for which a building permit is being sought. "Anticipated electrical</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>energy demand” shall be determined on the basis of the anticipated loads for each building as shown in the reports submitted at the time of building permit application pursuant to the Building Energy Efficiency Standards of Title 24. “On-site renewable energy generation” includes, but is not limited to, solar, wind, geothermal, biofuel, and hydroelectric systems. These systems shall be installed in connection with the development of one or more of the following: residential units, nonresidential buildings, public buildings, or Specific Plan utility facilities located within the Specific Plan area.</p> <p>The project shall also be designed to include rooftop solar generation that is the more stringent of a) compliance with Calgreen solar rooftop compliance mandate and b) provide renewable energy production for energy savings that is equivalent to electrical generation resulting from installation of one photovoltaic (i.e., solar) power system no smaller than a 2-kw solar panel for every single-family dwelling unit and for every 1600 square feet of non-residential roof area. Through consultation and approval from the Planning and Natural Resources Director, to the extent allowed by applicable state laws, including Calgreen, the above provisions could be modified in such a manner that equivalent community energy savings to residence are provided through alternative solar facility or facilities rather than individual panel installation on each residential and non-residential unit.</p>	
		MM 4.7-7: Energy Efficient Appliances. Energy efficient major appliances and heating, ventilation, and air conditioning (HVAC) systems that meet the more stringent of applicable California Energy Commission (CEC) requirements or ENERGY STAR requirements, or equivalent, shall be offered by residential builders. Major appliances subject to this requirement include dishwashers, clothes washers, refrigerators, fans, and room air conditioners.	
<b>Hazards and Hazardous Materials</b>			
Impact 4.8-1: Create a Significant Hazard to the Public or the Environment through the Routine Transport, Use, or Disposal of Hazardous Materials	Potentially significant	MM 4.8-1 Prior to site plan or special permit approval for the commercial and industrial uses designated in the Grapevine Special Plan, the project proponent shall provide to the County a description of planned hazardous material transportation, use and disposal, an assessment of compatibility with adjacent land uses, and measures to assure avoidance of incompatible adjacent land uses such as siting loading docks and hazardous substance storage areas at appropriate distances away from sensitive uses, and accident prevention and emergency response measures.	Less than significant
Impact 4.8-2: Create a Significant Hazard to the Public or the Environment through Reasonably Foreseeable Upset and	Potentially significant	Implement Mitigation Measure MM 4.8-1, as described above, Mitigation Measures MM 4.6-1 through MM 4.6-7, as described in Section 4.6, <i>Geology and Soils</i> , and Mitigation Measure MM 4.11-1, as described in Section 4.11, <i>Mineral Resources</i> . MM 4.8-2: Prior to approval of a demolition or grading permit for existing gas stations, leach fields, unlined ponds, and the Grapevine Wastewater Treatment Plant subsurface testing, compliant with the	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Accident Conditions Involving the Release of Hazardous Materials into the Environment		<p>Phase II ASTM E1903-11 standard, shall be completed. Appropriate remediation, with regulatory agency oversight, shall be undertaken if contamination is discovered prior to issuance of a building permit for a residence, school, or place of assembly on the contaminated area. Potential remediation options could include excavation and off-site disposal of contaminated soil, in-place treatment, and/or the installation of protective barriers.</p> <p>MM 4.8-3: Prior to issuance of any building permit for a residence, school or place of assembly in existing almond groves and grape fields, subsurface testing, compliant with the Phase II ASTM E1903-11 standard, shall be completed. Appropriate remediation, with regulatory agency oversight, shall be undertaken if contamination is discovered prior to issuance of any building permit for a residence, school or place of assembly on the contaminated area. Potential remediation options could include excavation and off-site disposal of contaminated soil, in-place treatment, and/or the installation of protective barriers.</p> <p>MM 4.8-4 If previously unknown soil contamination conditions are discovered during construction activities, the project proponent will (a) report these conditions to the County and, as applicable, other environmental oversight agencies; (b) prepare and implement a Soil Management Plan (SMP) addressing the newly discovered environmental conditions under the oversight of the County or alternate environmental oversight agency.</p> <p>MM 4.8-5 The project proponent shall include in its grading plan application the location and descriptions of any oil and gas equipment in the area proposed for grading.</p> <ul style="list-style-type: none"> <li>a) Prior to issuance of a grading permit for lands that include abandoned oil and gas wells, or abandoned oil and ancillary equipment, such wells shall be decommissioned and ancillary equipment removed, as required by applicable law, including but not limited to the regulatory requirements of the Division of Oil, Gas and Geothermal Resources. If soil contamination conditions exist in the oil and gas equipment areas, testing and remediation shall be required.</li> <li>b) All grading permits approved for the site shall require the permittee to report to the County any previously-unknown oil and gas equipment that is discovered during site grading or construction activities, and to comply with (a), above, prior to obtaining a building permit for the construction of a structure at the location of the newly-discovered oil and gas equipment.</li> <li>c) Site construction and development is required to avoid oil and gas equipment, including wells and ancillary equipment such as pipelines and storage tanks, with a 210-foot setbacks that comply with Chapter 19.98 of the Ordinance Code of Kern County.</li> </ul> <p>MM 4.8-6 The project proponent shall include in its grading plan application the location and description of electrical transformers, and if transformers are present, an inspection report by a qualified expert</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>that identifies any transformer leakage, damage or deterioration. Transformers that are leaking or deteriorated that contain polychlorinated biphenyls shall be replaced with newer models that do not contain polychlorinated biphenyls (PCBs) prior to issuance of any building permit for a structure on the transformer site. Any replaced transformers containing polychlorinated biphenyls shall be disposed of through a commercially permitted polychlorinated biphenyls disposal company, as identified by the U.S. Environmental Protection Agency.</p> <p>MM 4.8-7 Decommissioning and abandonment of oil and gas wells will be required to meet current applicable regulatory standards. Oil and gas well decommissioning procedures are addressed in WZI, Inc.'s August 2015 report entitled "Mineral Resources Evaluation". Where significant oil and gas production is currently occurring and has occurred in the past and visible contamination is present or is likely present, an ASTM E1903-11 compliant Phase II investigation shall be conducted with appropriate environmental agency oversight to evaluate environmental impacts so that appropriate remedial or other mitigation measures are undertaken, if necessary. A minimum of 30 days prior to construction (for motor vehicle fuel), the project proponent shall prepare and submit a Spill Prevention, Control, and Countermeasures Plan to the U.S. Environmental Protection Agency, the California Environmental Protection Agency, the Kern County Planning and Natural Resources Department, and to the Kern County Public Health Department for review. The Plan will be for the storage and use of gasoline or diesel fuel at the site in quantities of 660 gallons or greater. The purpose of the Plan will be to mitigate the potential effects of a spill of gasoline or diesel fuel. The Plan shall include features during construction that will contain accidental releases of petroleum products from construction equipment.</p>	
Impact 4.8-3: Emit Hazardous Emissions or Handle Hazardous or Acutely Hazardous Materials, Substances, or Waste within One-Quarter Mile of an Existing or Proposed School	Potentially significant	MM 4.8-8 As set forth in the Grapevine Special Plan, designated commercial and industrial uses are required to complete a special permit process with Kern County to avoid incompatible land uses.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Impact 4.8-4: Create a Hazard to Public or the Environment as a Result of Being Located on a Site that is Included on a List of Hazardous Material Sites Compiled Pursuant to Government Code Section 65962.5	Potentially significant	Implement Mitigation Measures MM 4.8-1 through MM 4.8-8, as described above, Mitigation Measures MM 4.6-1 through MM 4.6-7, as described in Section 4.6, <i>Geology and Soils</i> , and Mitigation Measure MM 4.11-1, as described in Section 4.11, <i>Mineral Resources</i> .	Less than significant
Impact 4.8-5: For a Project Located within the Vicinity of a Private Airstrip, Would the Project Result in a Safety Hazard for People Residing or Working in the Project Area	Less than significant	No mitigation is required.	Less than significant.
Impact 4.8-6: Impair Implementation of, or Physically Interfere with, an Adopted Emergency Response Plan or Emergency Evacuation Plan	Potentially significant	Implement Mitigation Measures MM 4.16-1 and MM 4.16-11, as described in Section 4.16, <i>Transportation and Traffic</i> . MM 4.8-9 Prior to the issuance of grading or building permits, the project proponent shall appoint an Emergency Response Liaison to coordinate the reduction of construction-related traffic for the duration of any emergency at or nearby the project site. The Kern County Fire Department, Kern County Sherriff's Department, and the California Highway Patrol shall be provided with the construction schedule and the on-site contact information for the Liaison prior to construction. The Liaison shall be immediately reachable at all times during project construction. The Liaison shall have radio contact with project construction vehicles at all times to coordinate traffic reduction measures. In addition, the Liaison shall coordinate with the Kern County Fire Department, the Kern County Sherriff's Department, and the California Highway Patrol to establish emergency procedures for access to the project site in the event of emergency during construction activities.	Less than significant
Impact 4.8-7: Expose People or Structures to a Significant Risk of Loss, Injury, or Death Involving Wildland Fires, Including Where Wildlands are	Potentially significant	MM 4.8-10 Each project area tentative tract map shall be designed to be consistent with the requirements of the Grapevine Fire Protection Plan and the Kern County Fire Department. MM 4.8-11 A note shall appear on all tentative tract maps specifying the applicable vegetation management zone requirements and prohibited plan list. Furthermore, the project proponent shall ensure that all prospective landowners within the project are aware of the prohibited plants list and vegetation	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Adjacent to Urbanized Areas or Where Residences are Intermixed with Wildlands		<p>management zone requirements and limitations as set forth in the Grapevine Fire Protection Plan through the following methods:</p> <ul style="list-style-type: none"> <li>a) Prior to purchase of property within the Grapevine Specific and Community Plan area, all future landowners will be provided with the prohibited plant list and vegetation management zone requirements and limitations.</li> <li>b) The project proponent shall maintain a community website that includes the prohibited plant list and vegetation management zone requirements and limitations.</li> <li>c) The project proponent shall ensure that the prohibited plant list and provisions of the Fire Management Plan shall be enforced by recording applicable covenants, codes, and restrictions on each private lot.</li> </ul> <p>MM 4.8-12 Applications for tentative tract maps and site plans shall show that access roads have been designed to meet all applicable state and local fire codes as described in the Grapevine Fire Protection Plan, or include equivalent fire protection performance features as approved by the Kern County Fire Department.</p> <p>MM 4.8-13 All new permanent power lines shall be installed underground. Temporary overhead power lines may be used during construction, and existing lines may be temporarily relocated above-ground during construction, provided that the tentative tract map or site plan application includes compliance with the vegetation clearing and restrictions specified in the Grapevine Fire Protection Plan, or alternate measures providing an equivalent level of fire protection as approved by the Kern County Fire Department.</p> <p>MM 4.8-14 Site plans and building permit applications shall include compliance with all applicable state and local fire codes as described in the Grapevine Fire Protection Plan, and occupancy permits shall be issued following Kern County inspection and confirmation of compliance.</p> <p>MM 4.8-15 Any application for Certificate of Occupancy or Business License within ¼ mile of an existing or designated school site will be required to identify any hazards materials used or stored on-site, and consult with the Kern County Public Health Department Services, Environmental Health Division for appropriate storage and handling.</p> <p>MM 4.8-16 The project proponent shall continuously comply with the following during the construction of the project: When a Red Flag Warning is issued by the National Weather Service for the project site, all non-emergency construction activities shall cease. This provision shall be clearly stated in the Fire Safety Plan. The required Emergency Response Liaison shall ensure implementation of a system that allows for immediate receipt of Red Flag Warning information from the Los Angeles/Oxnard office of the National Weather Service.</p> <p>MM 4.8-17 Prior to the issuance of grading or building permits, the project proponent shall develop and implement a Fire Safety Plan for use during construction. The project proponent shall submit the</p>	

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<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>Fire Safety Plan, along with maps of the project site and access roads, to the Kern County Fire Department for review and approval prior to the issuance of any building permit or grading permits. The Fire Safety Plan shall contain notification procedures and emergency fire precautions including, but not limited to, the following:</p> <ul style="list-style-type: none"> <li>a. All internal combustion engines, stationary and mobile, shall be equipped with spark arresters. Spark arresters shall be in good working order.</li> <li>b. Light trucks and cars with factory-installed (type) mufflers shall be used only on roads where the roadway is cleared of vegetation. Said vehicle types shall maintain their factory-installed (type) muffler in good condition.</li> <li>c. Fire rules shall be posted on the project bulletin board at the contractor's field office and areas visible to employees.</li> <li>d. Equipment parking areas and small stationary engine sites shall be cleared of all extraneous flammable materials.</li> <li>e. Personnel shall be trained in the practices of the Fire Safety Plan relevant to their duties. Construction personnel shall be trained and equipped to extinguish small fires in order to prevent them from growing into more serious threats.</li> <li>f. The project proponent shall make an effort to restrict use of chainsaws, chippers, vegetation masticators, grinders, drill rigs, tractors, torches, and explosives to 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.</li> <li>g. Smoking shall be prohibited in wildland areas and shall be limited to paved areas or areas cleared of all vegetation.</li> <li>h. The project proponent shall confer with the Kern County Fire Department regarding the need to install water or dip tanks within the project site. Should dip tanks be required, the project proponent shall construct dip tanks as specified by the Kern County Fire Department.</li> <li>i. Perimeter fuel modification zones around building pads shall be implemented and approved by the Kern County Fire Department prior to combustible materials being brought to the project site areas adjacent to conservation areas that include flammable vegetation.</li> <li>j. Existing flammable vegetation shall be removed on vacant lots prior to commencement of construction and prior to bringing combustible construction materials on-site.</li> <li>k. Dead fuel, ladder fuel (fuel which can spread fire from ground to trees), and downed fuel shall be removed and trees/shrubs shall be properly limbed, pruned, and spaced per this plan.</li> </ul> <p>MM 4.8-18 Prior to project approval, the project proponent shall submit tentative tract maps for each project area submitted for approval to the Kern County Planning and Natural Resources Department. These tentative tract maps shall also be submitted to Kern County Fire Department for review to</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
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		<p>ensure that the map is consistent with applicable plans, policies, and regulations as identified by the Kern County Fire Department.</p> <p>MM 4.8-19 Prior to issuing the first certificate of occupancy, the project proponent shall implement the Grapevine Fire Protection Plan. The project proponent shall submit the Grapevine Fire Protection Plan, along with maps of the project site and access roads, to the Kern County Fire Department for review and approval prior to the issuance of any building permit or grading permits. The Grapevine Fire Protection Plan requires the project proponent enforce the following:</p> <ul style="list-style-type: none"> <li>a. Residents, employees, and employers shall implement passive protections (fuel modification, interior sprinklers, ignition resistant construction) designed to work with little human intervention.</li> <li>b. The project proponent shall inform residents, employees, and employers within the project site that they shall maintain landscape and structural components according to the appropriate standards and embracing a "Ready, Set, Go" stance on evacuation.</li> <li>c. Fire rules shall be posted on a business bulletin board for all businesses within the project site. These rules shall be posted in areas visible to employees, typically a break room or main office.</li> </ul> <p>MM 4.8-20 Prior to the issuance of certificate of occupancy for any residential unit, all prospective landowners within the project site shall be provided copies of the prohibited plants list and vegetation management zone requirements and limitations as set forth in the Grapevine Fire Protection Plan. These provisions shall be enforced by recording applicable covenants, codes, and restrictions on each private lot and by notifying each private lot owner in writing prior to the lot or other property purchase of applicable plant use prohibitions and vegetation zone management requirements.</p> <p>MM 4.8-21 Prior to the issuance of certificate of occupancy, the homeowner association(s) within the project site shall provide education information to homeowners specific to the project site and the residential development locations. Homeowners shall be made aware of their responsibilities to maintain fire safe landscaping, and well and maintaining fuel modification zones. All fuel modification areas shall be maintained in perpetuity by the homeowner if private property or by the Property Owners' Association / Management Company if part of the common area. Per Public Resources Code 4290 and 4291, owners of properties adjacent to wildland fuels are required to maintain fuel modification areas.</p> <ul style="list-style-type: none"> <li>a. High Fire Hazard Severity Zone – Residential Fuel Modification Zones The development area in the southeast portion of the project site is adjacent to the project's steeper terrain (Foothill Area) and within the designated high fuel hazard severity zone. Therefore, the structures located on the perimeter edge of this area shall be required to</li> </ul>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>maintain a full 100 feet of fuel modification from the structure outward, toward the conservation area fuels.</p> <p>The fuel modification zones provided for the perimeter exposed structures shall be located within the development footprint as opposed to occurring off-site. However, off-site conservation area fuel management will continue under the direction of the Tejon Ranch and will be accomplished by managed grazing.</p> <p>b. Moderate Fire Hazard Severity Zone –Fuel Modification Zones Development of the project site within the moderate fire hazard severity zone shall be located in areas that include flat terrain and adjacent agriculture or other managed landscapes that present low fire risk and do not result in high flame lengths, high fire intensity, or particularly fast fire spread. Fuel modification zones for these areas shall include at least 30 feet of fuel modification area, which shall include, but are not limited to, mowed non-native grasses, thinned area or irrigated landscaped area including yards, parkways, roads, ornamental agriculture such as orchards and vineyards. This fuel modification area is applicable for perimeter structures' exposed sides that are adjacent to conservation areas or off-site fuels.</p> <p>c. Local Resource Area Unzoned Designations project areas within the Local Resource Area, are unzoned, and will not require formal fuel modification zones. These areas are primarily planned for industrial land uses. Landscaping in these areas shall provide a buffer around structures.</p> <p>d. Special Fuel Management</p> <ul style="list-style-type: none"> <li>• Roadside tree planting when the road is directly adjacent to a conservation area is acceptable, as long as it meets the following restrictions:</li> <li>• Crowns of trees located within defensible space shall maintain a minimum horizontal clearance of 10 feet for fire-resistant trees. No non-fire-resistant trees will be allowed.</li> <li>• Mature trees shall be pruned to remove limbs up to one-third the height of the trees or 6 feet above the ground surface adjacent to the trees, whichever is less.</li> <li>• Deadwood and litter shall be regularly removed from trees.</li> <li>• Ornamental trees along roadways at the interface with conservation areas shall be limited to groupings of two to three trees, with canopies for each grouping separated horizontally by 10 feet. This does not apply to irrigated and maintained groves, orchards, or other agricultural crops or any areas outside the fuel modification zones.</li> </ul> <p>e. On-site fuel modification areas will require ongoing maintenance as follows;</p> <ul style="list-style-type: none"> <li>• For roadside plantings that are within fuel modification zones, i.e., where a road occurs between the project and the conservation areas, fire-resistant trees shall be allowed for landscaping as long as vertical clearance is maintained at street edge. Care shall be</li> </ul>	

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		<p>given to the type of tree selected, so that it will not encroach into the roadway or produce a closed canopy effect.</p> <ul style="list-style-type: none"> <li>• Limit planting of large unbroken masses, especially trees and large shrubs within the fuel modification zones. Groups shall be two to three trees maximum, with mature foliage of any group separated horizontally by at least 10 feet if planted on a slope less than 20 percent, and 20 feet if planted on a slope greater than 20 percent. This does not apply to groves, orchards, or other irrigated, maintained agriculture operations.</li> <li>• If shrubs are located underneath a tree's drip line, the lowest tree branch shall be at least three times as high as the understory shrubs or 10 feet, whichever is greater.</li> <li>• Existing trees can be pruned 10 feet away from roof, eave, or exterior siding, depending on the tree's physical or flammable characteristics and the building construction features.</li> <li>• All tree branches shall be removed within 10 feet of a fireplace chimney or outdoor barbecue.</li> </ul>	
Impact 4.8-8: Would Implementation of the Project Generate Vectors or Have a Component That Includes Agricultural Waste Exceeding Adopted Qualitative Thresholds	Potentially significant	Implement Mitigation Measures MM 4.3-1 and MM 4.3-2, as described in Section 4.3, <i>Air Quality</i> . MM 4.8-22 The project proponent shall continuously comply with the following during construction implementation of the project: In order to eliminate the risk of generating disease vectors at the site, during project construction, the project proponent shall ensure that trash is stored in closed containers and removed from the site at regular intervals. Open containers shall be inverted and construction ditches shall not be allowed to accumulate water. Construction activities shall not generate standing water. Naturally occurring depressions, drainages, or pools at the site shall not be drained or filled without consulting with the appropriate resource agency (Kern County, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife) as applicable, and obtaining the appropriate permits. The environmental monitor shall ensure that standing water and large quantities of trash do not accumulate onsite. Project compliance shall be verified by the Kern County Public Works Department during the course of that agency's performance of any on-site inspections.	Less than significant
Impact 4.8-9: Cumulative Hazards and Hazardous Materials Impacts	Potentially significant	Implement Mitigation Measures MM 4.8-1 through MM 4.8-22, as described above, Mitigation Measures MM 4.3-1 and MM 4.3-2, as described in Section 4.3, <i>Air Quality</i> , Mitigation Measures MM 4.6-1 through MM 4.6-7, as described in Section 4.6, <i>Geology and Soils</i> , and Mitigation Measures MM 4.9-1 through MM 4.9-3, as described in Section 4.9, <i>Hydrology and Water Quality</i> .	Less than significant
<b>Hydrology and Water Quality</b>			
Impact 4.9-1: Violate Any Water Quality Standards or	Potentially significant	Implement Mitigation Measures MM 4.4-1, MM 4.4-6, and MM 4.4-11, as described in Section 4.4, <i>Biological Resources</i> , Mitigation Measures MM 4.8-2 through MM 4.8-8, as described in the Section 4.8, <i>Hazards and Hazardous Materials</i> .	Less than significant

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Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
Waste Discharge Requirements		<p>MM 4.9-1 Prior to the initiation of construction activity that qualifies for coverage under the California General Construction Permit, the project proponent shall comply with applicable permit coverage and notice requirements and construction-period management requirements, including the preparation and implementation of a stormwater pollution prevention plan (SWPPP) and the identification of erosion and sediment control options that meet applicable best available technology economically achievable and best conventional pollutant control technology (BAT/BCT) standards. During ground disturbance construction activities, the project proponent shall:</p> <ol style="list-style-type: none"> <li>1. Implement erosion control measures to prevent erosion from the construction site, including:                             <ol style="list-style-type: none"> <li>a. physical soil stabilization using hydraulic mulch, soil binders, straw mulch, bonded fiber matrices, and erosion control blankets as appropriate;</li> <li>b. limiting the area and duration of exposure of disturbed soils to the extent feasible;</li> <li>c. soil roughening of graded areas through track walking, scarifying, sheepsfoot rolling, or imprinting;</li> <li>d. vegetation stabilization through temporary seeding; and</li> <li>e. applying water or other dust controls.</li> </ol> </li> <li>2. Implement sediment control measures to prevent sedimentation impacts off the construction site, including:                             <ol style="list-style-type: none"> <li>a. perimeter protection using silt fences, fiber rolls, gravel bag berms, sand bag barriers, or straw bale barriers, including the protection of environmentally sensitive areas;</li> <li>b. storm drain inlet protection;</li> <li>c. sediment capture using sediment traps, storm drain inlet protection, or sediment basins;</li> <li>d. velocity reduction using check dams, sediment basins, outlet protection, or velocity dissipation devices; and</li> <li>e. off-site sediment tracking controls using stabilized construction entrances and exits, construction road stabilization, or entrance and exit tire wash facilities.</li> </ol> </li> <li>3. Implement waste and materials management measures to avoid unauthorized releases to and from the construction site, including measures to:                             <ol style="list-style-type: none"> <li>a. avoid releases and control solid, sanitary, concrete, hazardous, and equipment-related wastes; and</li> <li>b. protect soil stockpiles using covers, water or soil binders, or perimeter control measures.</li> </ol> </li> <li>4. Implement non-stormwater management measures to reduce or limit potential stormwater exposure to construction-related pollutants, including:                             <ol style="list-style-type: none"> <li>a. water conservation practices;</li> <li>b. vehicle and equipment cleaning; and</li> <li>c. vehicle fueling practices that avoid and control pollutant discharges.</li> </ol> </li> </ol>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<ol style="list-style-type: none"> <li>5. Implement training and education measures, including:                             <ol style="list-style-type: none"> <li>a. training individuals who are responsible for storm water pollution protection program preparation, implementation, and compliance, including construction contractors and subcontractors;</li> <li>b. providing signage that identifies storm water pollution protection program management requirements, such as site cleanup policies and designated washout locations; and</li> <li>c. disseminating construction-period water quality management measures and requirements to custom lot contractors prior to construction.</li> </ol> </li> <li>6. Conduct maintenance, monitoring, and inspections as required to ensure compliance with construction-period water quality control measures, including:                             <ol style="list-style-type: none"> <li>a. regular site inspections and inspections before, during (for storm events greater than 24 hours in duration), and after storm events;</li> <li>b. maintenance and repair of mitigation measures as required; and</li> <li>c. preparation and implementation of a sampling and analysis plan for non-visible pollutants of concern.</li> </ol> </li> <li>7. Implement a dry- and wet-weather control measures that include the following provisions:                             <ol style="list-style-type: none"> <li>a. dry-weather controls, including dust control, soil roughening of graded areas, sediment control measures at the down-gradient site perimeter and all operational storm drain inlets internal to the site, soil tracking mitigation, waste management and materials pollution control measures, nonstormwater measures to prevent or reduce stormwater contact with construction materials, and an action plan to deploy additional erosion and sediment controls as may be required within 48 hours of a predicted storm event; and</li> <li>b. wet-weather controls, including limiting the area and duration of exposure of disturbed soil areas, erosion and sediment control measures for disturbed areas, and maintaining sufficient on-site materials to implement additional erosion and sediment controls within 48 hours of a predicted storm event.</li> </ol> </li> </ol> <p>MM 4.9-2 Prior to approval of any final subdivision map or commercial/industrial site plan, the project proponent shall:</p> <ol style="list-style-type: none"> <li>1. Process and obtain from the Federal Emergency Management Agency (FEMA) a Conditional Letter of Map Revision (CLOMR) for the proposed project area; and</li> <li>2. Prepare a stormwater and drainage plan that is consistent with the provisions and requirements of any obtained CLOMR issued by FEMA and which will ensure the retention of stormwater within the project site consistent with Kern County's design standards. The project proponent shall consult with the Kern County Public Works Department to ensure that the stormwater and drainage plan is prepared in accordance with applicable methodologies.</li> </ol>	

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Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>The stormwater management and drainage plan shall meet or exceed the requirements in Kern County's Hydrology Manual. The stormwater and drainage management features to be included in the plan may include but are not limited to routing and management of proposed project stormwater runoff with both distributed low impact development (LID) best management practices (BMPs) (e.g., bioretention, biofiltration, infiltration trenches, stormwater planter boxes, flow dispersion of roof and driveway runoff) and a series of retention basins, referred to as "community-scale BMPs" to comply with the Kern County required sump volume capacity of capturing and retaining the runoff generated by the Intermediate Storm Design Discharge (ISDD) 10-year, 5-day storm event. The drainage management features, including "community-scale BMPs", shall be collectively sized to control site runoff produced from storms up to and including ISDD 10-year, 5-day storm event, such that the volume of runoff produced from the ISDD event (i.e. base flood event) is fully captured and retained, reducing the peak flow and volume in the post-development condition. Drainage plan conveyance infrastructure shall also be designed to meet Kern County Development Standards (e.g., to convey the ISDD event and/or the capital storm design (CSDD) event, as required). The plan shall also include adjustable diversion structure(s) to allow releases from the flood control sumps downstream to Grapevine Creek and/or tributaries to Pastoria Creek to allow for historical volumes of stormwater runoff to flow off-site, as sufficient to support downstream biological resources.</p> <p>MM 4.9-3 Prior to receipt of an occupancy permit for a residential or commercial structure on areas of the project site that include a standard curb and gutter system, the project proponent or building permittee shall stencil a statement or graphical icon above publicly accessible storm drain system inlets that prohibits dumping improper wastes into the storm drain system and shall install inserts to collect trash from storm drain inlets in high-use areas of the site that include a standard curb and gutter system.</p> <p>MM 4.9-4 Prior to recordation of a final subdivision map or approval of any commercial/industrial site plan on the project site, the project proponent shall provide evidence that maintenance inspection of common area treatment controls shall be conducted by the Tejon Castac Water District, project area Geologic Hazard Abatement District (GHAD), or other government agency with treatment control management responsibilities, as identified and approved by the Kern County Administrative Office, in consultation with the Kern County Planning and Natural Resources Department. The maintenance interval shall be at least once per year. The project proponent shall vest the lead biologist with the responsibility to monitor the operations of the diversion structures and direct releases as needed to ensure sufficient off-site flows to continue to support off-site biological resources and include common area treatment control maintenance responsibilities and</p>	

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		<p>obligations in the conditions, covenants, and restrictions (CC&amp;Rs), or similar restrictions, applicable to all private residences, commercial areas, or other privately owned or managed facilities within the project.</p> <p>MM 4.9-5 Prior to recordation of the first final subdivision map or site plan on the project site, the project proponent shall provide evidence to the County that the Tejon Castac Water District, a Geologic Hazard Abatement District (GHAD) with jurisdiction over the project site, or other government agency with water quality facility management and compliance responsibilities, as approved by the Kern County Administrative Office, has accepted responsibility for performing the following activities and shall submit annual reporting of compliance to the Kern County Planning and Natural Resources Department:</p> <ol style="list-style-type: none"> <li>1) Develop and provide environmental awareness education materials to all project residents and employees that include the following information:                             <ol style="list-style-type: none"> <li>a. household and other chemicals that should not be discharged from use locations, including discharge via hosing or other direct discharge to gutters, catch basins, and storm drains;</li> <li>b. the proper handling of fertilizers, pesticides, cleaning solutions, paint products, automotive products, trash and debris, and swimming pool chemicals;</li> <li>c. the environmental and legal impacts of illegal or harmful discharges into storm drains and sewers;</li> <li>d. alternative household products that reduce environmental impacts;</li> <li>e. household hazardous waste collection programs;</li> <li>f. used oil recycling programs;</li> <li>g. proper procedures for spill prevention and cleanup;</li> <li>h. proper storage of materials that pose pollution risks to local waters;</li> <li>i. public or private transportation alternatives;</li> <li>j. approved car washing facilities and locations in multi-unit residential areas; and</li> <li>k. proper management of pet wastes, including the use of disposal bins in high-use common areas, and the avoidance of feeding waterfowl, particularly near water bodies.</li> </ol> </li> <li>2) Conduct regular litter patrols and shall regularly empty trash receptacles in common areas to prevent trash spillage or overflow.</li> <li>3) Ensure that common area and private streets and parking lots in high-use areas are swept prior to the onset of the first storm of the rainy season each year.</li> </ol> <p>MM 4.9-6 Prior to the final recordation of the first tentative tract map, parcel map (not including finance maps), or processing of a commercial/industrial site plan, the project proponent shall submit final design for the debris basins and buried lateral stabilization (if needed) and calculations evidencing</p>	

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		<p>that the channel crossings/bank stabilization will withstand potential erosion and scour associated with peak flow discharge for the 100-year event.</p> <p>MM 4.9-7 Concurrent with the submittal of a tentative tract map, parcel map (excluding financing maps), or commercial/industrial site plan, the project proponent shall submit as an element of the Landscape Plan measures that addresses integrated pest management (IPM), pesticide and fertilizer application guidelines. IPM is a strategy that focuses on long-term prevention or suppression of pest problems (i.e., insects, diseases and weeds) through a combination of techniques including: using pest-resistant plants; biological controls; cultural practices; habitat modification; and the judicious use of pesticides according to treatment thresholds, when monitoring indicates pesticides are needed because pest populations exceed established thresholds. The Landscape Plan shall include the following components:</p> <ol style="list-style-type: none"> <li>1. Pesticide applicator certifications, licenses and training – in particular, all pesticide applicators must be certified by the California Department of Pesticide Regulation.</li> <li>2. Pest identification.</li> <li>3. Practices to prevent pest incidence and reduce pest buildup.</li> <li>4. Monitoring to examine vegetation and surrounding areas for pests to evaluate trends and to identify when controls are needed.</li> <li>5. Establishment of action thresholds that trigger control actions.</li> <li>6. Pest control methods- cultural, mechanical, environmental, and biological controls, as well as appropriate, more conventional pesticides.</li> <li>7. Pesticide management–safety (e.g., Material Safety Data Sheets, precautionary statements, protective equipment), regulatory requirements, spill mitigation, groundwater and surface water protection measures associated with pesticide use.</li> <li>8. Recommendations for fertilizer management - The guidelines will include soil assessment, fertilizer types, application methods, and storage and handling.</li> </ol>	
Impact 4.9-2: Substantially Deplete Groundwater Supplies or Interfere Substantially with Groundwater Recharge Such That There Would be a Net Deficit in Aquifer Volume or a Lowering of the Local Groundwater Table Level	Potentially significant	<p>Implement Mitigation Measures MM 4.9-1 through MM 4.9-7, as described above.</p> <p>MM 4.9-8 The project proponent shall participate in the groundwater management planning and implementation actions by the Tejon Castac Water District under the Sustainable Groundwater Management Act to protect and manage groundwater resources in the project area.</p>	Less than significant

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Impact 4.9-3: Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner Which Would Result in Substantial Erosion or Siltation On-site or Off-site	Potentially significant	Implement Mitigation Measures MM 4.9-1 through MM 4.9-7, as described above.	Less than significant
Impact 4.9-4: Substantially Alter the Existing Drainage Pattern of the Site or Area, Including through the Alteration of the Course of a Stream or River, or Substantially Increase the Rate or Amount of Surface Runoff in a Manner Which Would Result in Substantial Flooding On-site or Off-site	Potentially significant	Implement Mitigation Measures MM 4.9-1 through MM 4.9-6, as described above.	Less than significant
Impact 4.9-5: 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	Potentially significant	Implement Mitigation Measures MM 4.9-1 through MM 4.9-7, as described above.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Impact 4.9-6: Otherwise Substantially Degrade Water Quality	Potentially significant	Implement Mitigation Measures MM 4.9-1 through MM 4.9-7, as described above.	Less than significant
Impact 4.9-7: Place Structures within a 100-Year Flood Hazard Area Structures Which Would Impede or Redirect Flood Flows	Potentially significant	Implement Mitigation Measures MM 4.9-2, and MM 4.9-4 through MM 4.9-6, as described above.	Less than significant
Impact 4.9-8: Place Structures within a 100-Year Flood Hazard Area Which Would Impede or Redirect Flood Flows	Potentially Significant	Implement Mitigation Measures MM 4.9-2, and MM 4.9-4 through MM 4.9-6, as described above.	Less than significant
Impact 4.9-9: Expose People or Structures to a significant risk of Loss, Injury, or Death Involving Flooding, Including Flooding as a Result of the Failure of a Levee or Dam	Potentially Significant	Implement Mitigation Measure MM 4.9-2, and MM 4.9-4 through MM 4.9-6, as described above.	Less than significant
Impact 4.9-10: Result in Inundation by Seiche, Tsunami, or Mudflow	Potentially Significant	Implement Mitigation Measures MM 4.9-2 and MM 4.9-6, as described above, and Mitigation Measures MM 4.6-1 through MM 4.6-7, as described in Section 4.6, <i>Geology and Soils</i> .	Less than significant
Impact 4.9-11: Contribute to Cumulative Hydrology and Water Quality Impacts	Potentially Significant	Implement Mitigation Measures MM 4.9-1 through MM 4.9-8, as described above, Implement Mitigation Measures MM 4.4-1, MM 4.4-6, and MM 4.4-11, as described in Section 4.4, <i>Biological Resources</i> , Mitigation Measures MM 4.6-1 through MM 4.6-7, as described in Section 4.6, <i>Geology and Soils</i> , and Mitigation Measures MM 4.8-2 through MM 4.8-8, as described in the Section 4.8, <i>Hazards and Hazardous Materials</i> .	Less than significant
<b>Land Use and Planning</b>			
Impact 4.10-1: Conflict with Any Applicable Land Use Plan, Policy, or Regulation of an Agency with Jurisdiction over the	Potentially significant	MM 4.10-1 Within 180 days after adoption of the Grapevine Specific and Community Plan and associated Grapevine Special Planning District Plan, the Kern County Planning and Natural Resources Department shall review for consistency the Grapevine Specific and Community Plan and Grapevine Special Plan land use designations and zoning classifications within the Grapevine Specific and Community Plan Area. Kern County shall initiate amendments to the Zoning Map to	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Project Adopted for the Purpose of Avoiding or Mitigating an Environmental Effect		<p>correct any inconsistencies between the documents. The intent of this mitigation is to eliminate potential conflicts with the Kern County Zoning Ordinance, thereby complying with California Code Section 65860.</p> <p>MM 4.10-2 The following statement shall be included as a note on the final map for all subdivisions, commercial site plans and included in the project Covenants, Conditions and Restrictions (CC&amp;Rs): "This property is presently located under military training routes and a supersonic corridor subject to use by the Department of Defense. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to the routes and corridor (for example: noise, vibration, low-level over flight or sonic booms). Tejon Ranch currently operates a helistop and you may be exposed to noise impacts from helicopter overflights. Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you."</p>	
Impact 4.10-2: Conflict with Any Applicable Habitat Conservation Plan or Natural Community Conservation Plan	Less than significant	No mitigation measures are required.	Less than significant
Impact 4.10-3: Contribute to Cumulative Land Use Impacts	Potentially significant	Implement Mitigation Measures MM 4.10-1 and MM 4.10-2, as described above.	Less than significant
<b>Minerals</b>			
Impact 4.11-1: 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	Potentially significant	<p>MM 4.11-1 The project proponent shall identify the location of oil and gas equipment, including wells and ancillary equipment such as pipelines and storage tanks, located onsite and within 210 feet of the site included in a tentative tract map or site plan application. Plugged and abandoned well locations shall be recorded on all project subdivision maps and submitted to the Department of Conservation Division of Oil, Gas and Geothermal Resources (DOGGR). Compliance with the DOGGR Well Review Program shall be required prior to constructing any new structure within 100 feet of a plugged or abandoned well. No occupied structures may be built on top of a plugged or abandoned well. Prior to constructing any unoccupied structure, road or parking lot on top of a plugged or abandoned well, the well head must be excavated for surface plug inspection and leakage testing prior to any new surface development over the wellhead location. 48-hour advance written notice of any such plug inspection and leakage testing shall be provided to DOGGR, along with a written request that a DOGGR engineer witness such inspection and testing and provide a letter to the County and project proponent addressing leakage testing results. The plugged or abandoned well</p>	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>may need to be re-abandoned, if necessary, per compliance with DOGGR standards. If an abandoned or unrecorded well is uncovered or damaged during project-related excavation or grading, the discovery shall be reported to DOGGR and the County, and DOGGR shall be contacted by the County or project proponent to determine whether remedial plugging operations in accordance with DOGGR standards are required.</p> <p>Building permit applications for residences, schools, and places of assembly shall identify the location of oil and gas equipment, including wells and ancillary equipment, and new structures for such uses must comply with the applicable setback requirements and all applicable permitting requirements set forth in Chapter 19.98 of the Ordinance Code of Kern County (inclusive of applicable standards and mitigation measures).</p> <p>Oil and gas operators on the project site are required to complete either the Oil and Gas Conformity Review or Minor Activity Review process set forth in Chapter 19.98 of the Ordinance Code of Kern County for oil and gas activities undertaken within the Grapevine Specific and Community Plan, including but not limited to compliance with applicable noise and air quality setback distances between wells and residences, schools and other sensitive receptors, applicable release reporting and spill cleanup laws, and applicable worker training and emergency preparation and response laws, promptly report and cleanup spills, manage stormwater, and complete training to assure safe emergency preparation and response actions and obtain all State and any Federal permits required by law. Conditional Use Permits shall be required only for equipment and activities that do not qualify for Oil and Gas Conformity review or Minor Activity Review. Additionally, all project development shall be sited to not preclude potential future access to regionally significant mineral resources within and adjacent to the project site.</p>	
Impact 4.11-2: 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	Potentially significant	Implement Mitigation Measure MM 4.11-1, as described above.	Less than significant
Impact 4.11-3: Contribute to Cumulative Mineral Resources Impacts	Potentially significant	Implement Mitigation Measure MM 4.11-1, as described above.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
<b>Noise</b>			
Impact 4.12-1: Exposure of Persons to, or Generate, Noise Levels in Excess of Standards Established in the Local General Plan or Noise Ordinance or Applicable Standards of Other Agencies	Potentially significant	<p>MM 4.12-1 The following shall be implemented by the project proponent during project construction:</p> <ol style="list-style-type: none"> <li>1) Project construction hours shall comply with Kern County Noise Ordinance.</li> <li>2) The construction contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors.</li> <li>3) The construction contractor shall locate pile drivers, or other machinery capable of causing strong vibrations or load noises, such that the rear of the vibratory pile driver or machinery faces toward the noise sensitive receptor when the machine is being utilized.</li> <li>4) The construction contractor shall locate equipment staging in areas that will create the greatest possible distance between construction –related noise sources and noise sensitive receptors nearest the project site during all project construction to the extent practical.</li> <li>5) The construction contractor shall ensure proper maintenance and working order of equipment and vehicles, and that all construction equipment is equipped with manufacturer’s approved mufflers and baffles.</li> <li>6) The construction contractor shall install sound-control devices in all construction and impact equipment, no less effective than those provided on the original equipment.</li> <li>7) The construction contractor shall establish a noise disturbance coordinator for the project during construction. The disturbance coordinator shall be responsible for responding to any complaints about construction noise. The disturbance coordinator shall determine the cause of the complaint and shall be required to implement reasonable measures to resolve the complaint.</li> </ol> <p>MM 4.12-2 Prior to the issuance of grading permits, the project operator shall submit evidence of the following: Construction contracts shall specify that notices shall be sent out to all residences located within a 1,000 feet from the project site at least 15 days prior to commencements of construction. The notices shall include the construction schedule and a telephone number where complaints can be registered with the noise disturbance coordinator. A sign, legible at a distance of 50 feet, shall also be posted at the construction sites throughout construction which includes the same details as the notices.</p> <p>MM 4.12-3 Prior to issuance of grading permits, the project proponent shall submit evidence of methods of implementation and shall continuously comply with the following during construction: A “noise disturbance coordinator” shall be established. The disturbance coordinator shall be responsible for responding to any local complaints about construction noise. The disturbance coordinator shall</p>	Less than significant

		<p>determine the cause of the noise complaint (e.g., starting to early, bad muffler, etc.) and shall be required to implement reasonable measures such that the complaint is resolved.</p> <p>MM 4.12-4 a) Prior to approval of any subdivision map that would authorize residential development, park site, or other sensitive noise receptor within 1,000 feet of the centerline of Interstate 5, the project proponent shall provide to the County a noise assessment prepared by a qualified, County-approved acoustical engineer. The noise assessment shall identify noise reduction measures necessary to ensure that sensitive noise receptors located adjacent to Interstate-5 will not be exposed to ambient noise levels that exceed 65 dBA (outside) and 45 dBA (inside) respectively. Acceptable noise reduction measures could include, but not be limited to, sound barriers, vegetated buffers, ventilation filters, noise attenuating window glazing, and noise attenuating insulation. Noise reduction measures identified in the required noise assessment shall be required as conditions of approval to the final subdivision map, commercial site plan, and/or building permit to assure compliance with the County's ambient noise standards.</p> <p>b) Prior to approval of any subdivision map that would authorize residential development, park site, or other sensitive noise receptor within 500 feet of the centerline of any internal roadway, the project proponent shall provide to the County a noise assessment prepared by a qualified, County-approved acoustical engineer. The noise assessment shall identify noise reduction measures necessary to ensure sensitive noise receptors located adjacent to internal project roadways will not be exposed to ambient noise levels that exceed 65 dBA (outside) and 45 dBA (inside) respectively. Acceptable noise reduction measures could include, but not be limited to, sound barriers, vegetated buffers, ventilation filters, noise attenuating window glazing, and noise attenuating insulation. Noise reduction measures identified in the required noise assessment shall be required as conditions of approval to the final subdivision map, commercial site plan, and/or building permit to assure compliance with the County's ambient noise standards.</p> <p>MM 4.12-5 Prior to issuance of final occupancy, the project proponent shall reduce noise impacts by ensuring the installation of acoustical shielding around all new rooftop heating-ventilation-air-conditioning (HVAC) equipment, or by placing the HVAC equipment below grade in basement space, as needed to assure that that exterior noise levels do not exceed 65 dBA CNEL at the property line of the nearest noise-sensitive land use.</p> <p>MM 4.12-6 Prior to the submittal of any Commercial/Industrial Site Development Plan or modification to an approved Commercial Site/Industrial Development Plan, the project proponent shall demonstrate that a distance of not less than 35 feet will be established between proposed school, park, or community center activity areas (playgrounds, athletic fields etc.) and neighboring residential neighborhoods.</p> <p>MM 4.12-7 Prior to the submittal of any Commercial Site/Industrial Development Plan or modification to an approved Commercial Site/Industrial Development Plan, the project proponent shall demonstrate that pump stations located adjacent to residential land uses or water treatment / wastewater treatment facilities located within 55 feet of residential land uses shall place pumps, emergency generators, and any other motorized equipment within a masonry enclosure that minimizes noise levels outside the enclosure. Prior to operation, the noise levels from stationary motorized</p>	
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<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		equipment (including emergency generators) shall be measured to ensure that operation of the equipment would not exceed an exterior noise level of 65 dBA CNEL at the nearest residential property line.	
Impact 4.12-2: Exposure of Persons to, or Generate, Excessive Ground Borne Vibration or Ground Borne Noise Levels	Less than significant	The project would comply with the goals, policies, and implementation measures of the KCGP. No additional mitigation measures are proposed.	Less than significant
Impact 4.12-3: Substantial Permanent Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing without the Project	Potentially significant	Implement Mitigation Measures MM 4.12-1 through MM 4.12-7, as described above.	Less than significant
Impact 4.12-4: Substantial Temporary or Periodic Increase in Ambient Noise Levels in the Project Vicinity above Levels Existing without the Project	Potentially significant	Implement Mitigation Measures MM 4.12-1 through MM 4.12-3, as described above.	Significant and unavoidable
Impact 4.12-5: For a Project within the Vicinity of a Private Airstrip, Exposure of People Residing or Working in the Project Area to Excessive Noise Levels	Less than significant	The project would comply with the goals, policies, and implementation measures of the KCGP. No additional mitigation measures are proposed.	Less than significant
Impact 4.12-6: Contribute to Cumulative Noise Impacts	Potentially significant	Implement Mitigation Measures MM 4.12-1 through MM 4.12-7, as described above.	Significant and unavoidable

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
<b>Population and Housing</b>			
Impact 4.13-1: Induce Substantial Population Growth in an Area, Either Directly or Indirectly	Significant	There are no feasible mitigation measures to avoid population growth at the project site while achieving any of the project objectives of developing a sustainable new mixed-use community near employment and retail centers of the TRCC.	Significant and unavoidable
Impact 4.13-2: Contribute to Cumulative Population and Housing Impacts	Significant	There are no feasible mitigation measures to avoid population growth within and in the vicinity of the Grapevine Specific and Community Plan area while achieving any of the project objectives of developing a sustainable new mixed-use community near employment and retail centers of the TRCC or the regional growth and development objectives in the Regional Transportation Plan/Sustainable Communities Strategy.	Significant and unavoidable
<b>Public Services</b>			
Impact 4.14-1: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Fire Protection	Potentially significant	Implement Mitigation Measures MM 4.8-10 through MM 4.8-21, as described in Section 4.8, <i>Hazards and Hazardous Materials</i> . MM 4.14-1 Prior to the issuance of the 1,500 <sup>th</sup> residential building permit, the project proponent will have designated a site for and constructed a fire station to serve the project. In addition, the project proponent will provide the following three pieces of equipment: (1) One fully-equipped Type 1 Fire Engine; (2) One fully-equipped aerial ladder truck; and (3) One fully-equipped Type 6 Wildland Patrol. MM 4.14-2 Prior to the issuance of the 4,000 <sup>th</sup> residential building permit, or as otherwise may be agreed with Fire Department, the project proponent will have designated a site for and constructed a 2nd fire station to serve the project. In addition, the project proponent will provide the following two pieces of equipment as follows: (1) One fully-equipped Type 1 Fire Engine; (2) One fully-equipped Type 3 Wildland Patrol.	Less than significant
Impact 4.14-2: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities,	Potentially significant	MM 4.14-3 Prior to issuance of the first certificate of occupancy for a residential unit within Grapevine, the project proponent shall provide the Kern County Sheriff's Department with an office facility at the Tejon Ranch Commerce Center Outlets at Tejon or at another location that is acceptable to the Sheriff's Department, so that they are able to provide service to the project's first 1,000 residences. MM 4.14-4 The project proponent will designate a site for, and will construct, a permanent Sheriff's facility to serve the Grapevine Specific and Community Plan Area. Prior to issuance of the 1,000 <sup>th</sup> residential building permit, or as may otherwise be agreed with Sheriff's Department, the project	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
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 Police/Sheriff Protection Services		proponent will have designated a site of up to 4.5 acres (or such other smaller size as may be agreed to by the Sheriff's Department as sufficient to meet the Sheriff's operational needs) and will have constructed an initial phase of the permanent Sheriff's facility. The construction of the facility may be completed in a phased manner consistent with the project's build-out in coordination with the Sheriff's operational needs and may be developed as a joint-use facility with other community serving or civic uses such as, but not limited to, Fire and Emergency Services.	
Impact 4.14-3: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for School Services	Potentially significant	<p>MM 4.14-5 <b>Kindergarten through Eighth Grade (K-8) Students for Initial Project Phase.</b> Students will be housed within the applicable school district's existing facilities capacity at General Shafter School on an interim basis. Completion of construction and opening of the initial new K-8 school shall occur when K-8 student generation from the project exceeds 125 students or by such other date mutually agreed upon by project proponent and the applicable district, and at such time the initial 125 students housed in existing facilities will be re-located to the K-8 school at the project site.</p> <p>MM 4.14-6 <b>High School Students for Initial Project Phase.</b> Students generated from the project prior to opening of a high school on site will be housed within the high school district's existing facilities capacity at high schools in South Bakersfield on an interim basis. If excess facility capacity is used prior to the opening of the new high school on site, students will be housed through the addition of temporary leased portables that will be located at existing high school site(s). The leasing of temporary portables will be paid for by the project proponent. Completion of construction and opening of the new high school shall occur when high school student generation from the Project reaches 1,000 freshman and sophomore year students or by such other date mutually agreed upon by project proponent and the high school district and at such time the initial students from the project site housed in existing facilities will be re-located to the High School at the project site.</p> <p>MM 4.14-7 <b>School Facilities Funding.</b> Prior to approval of the first final map for the project, project proponent and the applicable district(s) shall enter into a mutually agreeable School Facilities and Financing Agreement. The School Facilities and Financing Agreement shall address financing mechanisms for funding facilities to serve the students from the project, shall maximize access to and use of third party school funding sources, and shall include other mutually agreeable provisions for the</p>	Less than significant

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>final description and conveyance of school sites, the design and construction of school facilities in accordance with local and State standards and the determination of final student generation rates and the timing of school construction and opening. Pursuant to California Government Code Section 65995 <i>et seq.</i>, and except as otherwise provided in a School Facilities and Financing Agreement entered into between project proponent and the applicable district(s), the project proponent shall pay applicable developer fees to the appropriate school district(s) at the time building permits are issued for the project.</p> <p>MM 4.14-8 <b>School Site Designation.</b> Prior to submittal of the first tentative tract map for each planning area the project proponent shall identify with specificity the site(s) for any new school facilities to be located therein and such site(s) shall be acquired by and conveyed to the applicable school district, or be made available as otherwise agreed pursuant to the terms and conditions of the applicable School Facilities and Financing Agreement. As may be more expressly outlined in the School Facilities and Financing Agreement, prior to final school site designation, project proponent and the General Shafter School District and Kern High School District, as appropriate, will work cooperatively to determine the projected student population for the service area of the school site to be designated and based upon such information, designate the appropriate school site(s).</p>	
Impact 4.14-4: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Park Services	Potentially significant	<p>MM 4.14-9 The project will provide a minimum of 96 acres of parks, as required by Kern County and state development codes in the following manner:</p> <ol style="list-style-type: none"> <li>1) Four (4) acres of park land will be designated and improved for every 500 residential dwelling units built. The cumulative total of park land provided will be tracked by project proponent and reported on each tract map application, and 4 acres of park land will be required to be provided prior to the issuance of the certificate of occupancy for each 500<sup>th</sup> residential unit.</li> <li>2) Tentative subdivision tract maps shall depict the location of parks lands.</li> <li>3) Joint use park lands may be counted toward the project's park requirement so long as a joint-use agreement between the project proponent and appropriate entity is submitted to Kern County concurrent with the application for the applicable tentative tract map.</li> <li>4) The project proponent shall construct a variety of parks including "regional parks." Prior to the completion of the 2,500<sup>th</sup> residential unit the project proponent shall have designated and constructed a minimum of one park that meets the following definition of a "regional parks." A "regional park" is park land that include any of the following features:                         <ol style="list-style-type: none"> <li>a). Can accommodate large numbers of people without significant deterioration of the recreation experience;</li> <li>b). Have proximity to high volume corridors, except in the case of multi-use and nature trails which may be more remote;</li> <li>c). Developed indoor or outdoor facilities for competitive/active uses;</li> </ol> </li> </ol>	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		d). May provide competition level athletic fields; e). Natural/environmental areas or areas that preserve natural habitat; f). Adequate support amenities, such as restrooms, parking, and community programming; g). Unique facilities such as dog parks, skate parks, and equestrian facilities.	
Impact 4.14-5: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Library Services	Potentially significant	MM 4.14-10 Prior to issuance of the 500 <sup>th</sup> residential building permit, the project proponent will designate a location for and construct a building to house a temporary 1,500 square feet public library facility. The temporary facility may be developed as part of a joint-use facility with other community serving or civic uses. Prior to issuance of the 4,000 <sup>th</sup> residential building permit, the project proponent will designate a location for and construct an up to 6,500 square feet public library facility. The facility may be developed as part of a joint-use facility with other community serving or civic uses.	Less than significant
Impact 4.14-6: Result in Substantial Adverse Physical Impacts Associated with the Provision of New or Physically Altered Governmental Facilities, Need for New or Physically Altered Governmental Facilities, the Construction of Which Could Cause Significant Environmental Impacts in order to	Potentially significant	Implement Mitigation Measures MM 4.14-1 through MM 4.14-10, as described above.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Maintain Acceptable Service Ratios, Response Times, or Other Performance Objectives for Medical Services			
Impact 4.14-7: Contribute to Cumulative Public Service Impacts	Potentially significant	Implement Mitigation Measures MM 4.14-1 and MM 4.14-10, as described above, as well as Mitigation Measures MM 4.8-10 through MM 4.8-21, as described in Section 4.8, <i>Hazards and Hazardous Materials</i> .	Less than significant
<b>Recreation</b>			
Impact 4.15-1: Result in Increased Use of Existing Neighborhood and Regional Parks or Other Recreational Facilities Such That Substantial Physical Deterioration Would Occur or Be Accelerated	Less than significant	The project would comply with the goals, policies, and implementation measures of the KCGP. No additional mitigation measures are proposed.	Less than significant
Impact 4.15-2: Include Recreational Facilities or Require Construction or Expansion of Recreational Facilities That Might Have an Adverse Physical Effect on the Environment	Potentially significant	Implement Mitigation Measures MM 4.4-1, MM 4.4-3, MM 4.4-7 through MM 4.4-9, and MM 4.4-11, as described in Section 4.4, <i>Biological Resources</i> , Mitigation Measures MM 4.5-1 through MM 4.5-9, as described in Section 4.5, <i>Cultural Resources</i> , Mitigation Measures MM 4.6-1 through MM 4.6-7, as described in Section 4.6, <i>Geology and Soils</i> , Mitigation Measures MM 4.8-10 through MM 4.8-22, as described in Section 4.8, <i>Hazards and Hazardous Materials</i> , and Mitigation Measures MM 4.14-9, as described in Section 4.14, <i>Public Services</i> . MM 4.15-1 The project proponent shall include on tentative tract maps the location of planned pedestrian and bicycle trails as part of the project's multi-modal transportation program as set forth in the Grapevine Specific and Community Plan and Grapevine Special Plan. As a condition of approval for recordation of a final subdivision map, the project proponent shall construct and maintain, or enter into an agreement with an alternate entity, to construct and maintain, features such as pedestrian and bicycle trails. For trails identified in Open Space areas in the Tehachapi foothills and in major drainages that will not be subdivided for development purposes, the trails shall be identified in the first tentative tract map application for lands located adjacent to each Open Space area, and shall be constructed and maintained as a condition in the corresponding final tract map. Tentative and final maps shall also provide for continued use of existing under-crossings, pass-throughs and culverts of sufficient size to allow for pedestrian, bicycle, and/or equestrian use, may be retained and utilized as part of the project's trail system.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Impact 4.15-3: Contribute to Cumulative Recreation Impacts	Potentially significant	Implement Mitigation Measure 4.15-1, as described above, as well as Mitigation Measures MM 4.4-1, MM 4.4-3, MM 4.4-7 through MM 4.4-9, and MM 4.4-11, as described in Section 4.4, <i>Biological Resources</i> , Mitigation Measures MM 4.5-1 through MM 4.5-9, as described in Section 4.5, <i>Cultural Resources</i> , Mitigation Measures MM 4.6-1 through MM 4.6-7, as described in Section 4.6, <i>Geology and Soils</i> , Mitigation Measures MM 4.8-10 through MM 4.8-22, as described in Section 4.8, <i>Hazards and Hazardous Materials</i> , and Mitigation Measure MM 4.14-9 as described in Section 4.10, <i>Public Services</i> . In addition, the project would comply with the goals, policies, and implementation measures of the KCGP.	Less than significant
<b>Transportation and Traffic</b>			
Impact 4.16-1: Conflict with an Applicable Plan, Ordinance, or Policy Establishing Measures of Effectiveness for the Performance of the Circulation System	Potentially significant	<p>MM 4.16-1 All project circulation elements, including on-site public roadways and driveways, will be designed and constructed in compliance with the goals, policies and design criteria described in the Grapevine Specific and Community Plan and the Grapevine Special Plan.</p> <p>MM 4.16-2: Prior to the recordation of any tentative tract map, parcel map (excluding financing map), or commercial site development plan, a Transportation Management Association (TMA) shall be formed and funded to implement transportation demand management measures that reduce vehicle trips and encourage multi-modal movement in a phased manner as development occurs within the project area. The Transportation Management Association shall fund a transportation coordinator for the project area and shall be responsible for implementing a commute trip evaluation and reduction program that includes the following strategies:</p> <ol style="list-style-type: none"> <li>1) Coordinating transit schedules to align with employer work schedules;</li> <li>2) Providing discounted transit passes;</li> <li>3) Organizing ridesharing, bike-share or car-share programs;</li> <li>4) Sponsored shuttle/vanpool services, in collaboration with employers, to serve major employment centers;</li> <li>5) Preferential carpool and vanpool parking;</li> <li>6) End of trip facilities for bicyclists;</li> <li>7) Conducting marketing campaigns to encourage non-automotive modes for commuting and other movement requirements such as the encouragement of flexible work schedules and telecommuting, and the benefits of parking fees and parking cash-out programs.</li> <li>8) Coordinating with project employers to establish a ride home service for employees needing to respond to an emergency condition (e.g., playground injury of a child) that have used project transit to commute to work, such as on-demand transportation provided by taxis and ride services such as Uber and Lyft;</li> <li>9) Coordinating with local schools to establish and maintain a Safe Routes to School program to facilitate students walking and biking to schools; and</li> </ol>	Less than significant

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>10) Maintaining a TMA website accessible to project residents, employers and employees that includes educational information about air quality and greenhouse gas benefits of implementing a compressed work week schedule and home-based telecommunication program.</p> <p>11) Implementing other feasible trip reduction measures to avoid causing a significant adverse traffic impact within the project's roadway segments and intersections.</p> <p>Upon commencement of project construction activities, the TMA or its designee shall prepare an annual report that outlines program reduction measures implemented during the past year. At the earlier of five year intervals after commencement of projection construction activities, and for each of the traffic reports submitted for an application for a tentative tract map as required by MM 4.16-3 below, the TMA or its designee shall prepare a report describing the effectiveness of program reduction measures (and any other relevant change in transportation legal mandates, or transportation services or technologies) to reduce single-occupancy automobile use in Home-Based Work trips, and may include reductions in other automobile trips. This TMA trip reduction data shall be used in subsequent project traffic reports to calibrate actual trips in relation to the estimated average daily, and AM/PM peak trips. A copy of all TMA reports shall be submitted to the Kern County Planning and Natural Resource Department and the Kern County Public Works Department by April 15th of each calendar year.</p> <p>MM 4.16-3 Concurrent with the submittal of any application for tentative tract map, parcel map (excluding financing maps), or commercial/industrial site plan development, the project proponent shall conduct an appropriate traffic study, which shall include an analysis to determine if project traffic volumes are consistent with the trip distribution and internal capture (ICR) rate projections identified in the SREIR and whether the trip distribution and/or internal capture rate information in the traffic study identifies a potentially significant adverse impact to roadway segments or intersection operations. The study shall also specifically evaluate queuing level and traffic conditions at both the I-5/Wheeler Ridge Road/Laval Road Interchange and the I-5/Grapevine Road Interchange.</p> <p>1) A 10% deviation in trip distribution or internal capture rates shall be considered a potentially significant adverse impact, and the traffic study shall identify the extent to which this or a greater deviation reflects a temporary snapshot of the partial buildout of the project or is likely to continue under then-reasonably foreseeable circumstances through future project buildout. For any reasonably foreseeable persistent significant deviations from the trip distribution and/or internal capture rates identified for the project in the most recent EIR, the traffic study shall further identify whether this change to the trip distribution and/or internal capture rate would result in a significant adverse traffic impact to roadway segments or intersection</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>operations. If such a significant traffic impact is identified in the traffic study, the project proponent shall be required to consult with the County to review whether intersection and roadway performance is consistent with applicable County and Grapevine Specific and Community Plan criteria, or if any additional measures are required to avoid a significant adverse impact to roadway segments or intersection operations. If such measures are required, the project proponent shall:</p> <ul style="list-style-type: none"> <li>(a) Identify and implement additional trip reduction measures through the Transportation Management Association pursuant to the TMA procedures set forth in MM 4.16-2 to avoid causing any significant new impact to a local intersection, peak hour road, or local freeway segment;</li> <li>(b) Identify and implement roadway and signalization design modifications within the development area of the project site, identified in the 2019 Traffic Study or most recent Environmental Document for the project, that are sufficient to avoid a new significant impact or avoid substantially worsening a previously-identified significant impact.</li> </ul> <p>Or</p> <ul style="list-style-type: none"> <li>(c) Identify and implement a combination of (a) and (b) above.</li> </ul> <p>2) In each tentative tract map submittal, the project proponent shall reserve the right of way required for potential implementation of such roadway improvements, identified in the 2019 Traffic Study or most recent Environmental Document for the project, that will avoid significant new impacts to local intersections, local roadways, and local freeway segments. The project proponent may apply to the County for the release of any such road right of way reservation in an amended tentative tract map, parcel map, or final map, or as part of a commercial site plan review, at such time as the project proponent can demonstrate that it is no longer reasonably foreseeable that such expanded roadway improvements are needed to avoid the significant impact identified. Any such application shall include a traffic report documenting the absence of a current or reasonably foreseeable significant adverse impact to such local intersection, local roadways, and local freeway segments. In the interim, the reserved right of way may be developed with uses that support multi-modal transportation, including but not limited to walking, biking, or NEV trails, until such a time as the right of way is needed to construct the required roadway improvements or such right of way is released per above procedure.</p> <p>3) Any identified roadway or signalization improvements, or reservations of right of way to accommodate potential future improvements, required by the County and Caltrans to be implemented under MM 4-16-3(1) (b) and (2) above shall be included as conditions of approval of any final subdivision maps or commercial/industrial site plans.</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>MM 4.16-4 Prior to the issuance of the first building permit within each Plan Area as identified in the Grapevine Specific and Community Plan and the Grapevine Special Plan, the project proponent shall be required to provide a one-time road maintenance endowment to off-set ongoing costs of roadway maintenance. Payments(s) shall be provided in eight (8) installments as identified below.</p> <ul style="list-style-type: none"> <li>• Plan Area 1: Total Due \$280,000</li> <li>• Plan Area 2: Total Due \$481,800</li> <li>• Plan Area 3: Total Due \$363,400</li> <li>• Plan Area 4: Total Due \$391,600</li> <li>• Plan Area 5a: Total Due \$382,000</li> <li>• Plan Area 5b: Total Due \$76,400</li> <li>• Plan Area 6a: Total Due \$246,400</li> <li>• Plan Area 6b-6e: Total Due \$68,800</li> </ul> <p>MM 4.16-5 The project proponent is responsible for ensuring construction activities associated with development of the Grapevine Project are not detrimental to any County maintained road(s) within the Grapevine Specific and Community Plan.</p> <p>Prior to issuance of any grading or building permit, the project proponent shall adhere to the following provisions:</p> <ol style="list-style-type: none"> <li>1) Obtain an Encroachment Permit from Kern County Public Works Department and enter into a secured agreement for unanticipated construction related road repairs. The purpose of this secured agreement is to ensure that any County maintained road within the Grapevine Specific and Community Plan boundary that is demonstrably damaged by the construction related activities are promptly repaired and, if necessary paved, slurry sealed or reconstructed as per requirements of the state and/or Kern County. The project proponent shall identify and provide the Kern County Public Works Department with a videotape of the pre- and post-construction condition of all County maintained public roadways within the Grapevine Specific and Community Plan boundary that will be utilized by the project proponent to access the proposed construction site.</li> <li>2) Upon conclusion of the construction activities, the project proponent shall make any necessary construction related repairs to County roadways within the Grapevine Specific and Community Plan boundary in consultation with Public Works Staff.</li> </ol> <p>Any grading or building permit for a single family residential dwelling unit located within an approved tentative tract map or parcel map that has already complied with this measure is specifically exempt from any further maintenance requirements.</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>Any roadways that have been specifically over engineered and constructed by the project proponent to withstand large scale construction traffic and use, as determined by the Kern County Public Works Department shall also be exempt from future maintenance requirements.</p> <p>MM 4.16-6 The project proponent shall implement the following measures to ensure adequate performance at internal intersections within the Grapevine Specific Plan area and eliminate any significant impacts on project and local roadways.</p> <ol style="list-style-type: none"> <li>1) As part of any traffic study submitted with an application for a tentative tract map, parcel map (with the exception of financing maps), or commercial/industrial site plan development, the project proponent shall be required to identify any project or local roadway or intersection that could potentially fall below Level of Service (LOS) D under cumulative plus project conditions. This traffic study shall also identify residential and commercial uses for previously-approved tentative and/or final tract maps, occupancy permits issued for residential and commercial uses, and available traffic information from the TMA.</li> <li>2) Prior to issuance of the 5,000th, 7,500th, and 10,000th residential building permit (single family and multi-family), the project proponent shall prepare a traffic report to identify the Level of Service (LOS) on all constructed project and local roadways and intersections. This traffic report may be included as part of the traffic study required for each tentative tract map if the tentative tract map (TTM) aligns with these residential buildout milestones but need not be included if the TTM does not align with these milestones. If the study traffic report determines that any such project or local roadway or intersection is operating within LOS E or LOS F, the project proponent, in consultation with the County shall review whether this performance is consistent with County and Grapevine Specific and Community Plan criteria and determine if any additional improvements or implementation of additional transportation demand measures are required to ensure ongoing functioning of the facility. Any such improvements shall be constructed by the project proponent or implemented through another agreement in consultation with the Kern County Public Works Department.</li> </ol> <p>MM 4.16-7 Prior to the issuance of any occupancy permit that would facilitate development within the project site that could be accessed utilizing the existing I-5/Grapevine Road interchange, the project proponent shall be required to consult with Caltrans and identify appropriate interchange enhancements such as implementing gore points, auxiliary lanes, acceleration lanes, lighting, signage, and relocation of Northbound and Southbound exit and entrance ramps approximately ½ mile to the north.</p> <p>MM 4.16-8 Subsequent to the commencement of construction activities on the project site, the project proponent shall be required to conduct a biennial traffic monitoring report at the existing I-5/Wheeler Ridge Road/Laval Road interchange and, following the completion of operational</p>	

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>enhancements, at the existing I-5/Grapevine Road interchange. The purpose of this program is to monitor Level of Service and queuing conditions at project utilized interchanges. The required report will include delay, level of service and queue length by movement / segment at the project utilized interchange to determine the operating conditions during AM and PM Peak Hour conditions. Caltrans has an operational goal for freeway mainline, on-ramp merge, off-ramp diverge and weaving section of LOS D or better. If any movement / segment is within 10 percent of falling below the acceptable LOS D threshold, improvements will be implemented to reduce delay and improve level of service and queue lengths to improve interchange operations. The required report shall be submitted to Kern County and to Caltrans by April 15th every other year. If at any time, the results of this biennial traffic monitoring report indicate that the project is within 10 percent of falling below Level of Service (LOS) D at either interchange, the project proponent shall implement the following actions:</p> <ol style="list-style-type: none"> <li>1) Provide Kern County and Caltrans a detailed breakdown of how many additional permits (Interim Permits) can be issued while still maintaining a Level of Service (LOS) D at either interchange. Once the Interim Permits have been issued, no additional building permits shall be issued until such time as appropriate expanded and/or relocated improvements have been constructed.</li> <li>2) Initiate with Caltrans all necessary actions to expand and/or relocate the existing I-5/Grapevine Interchange. Improvements can include, but are not limited to the following options:                         <ol style="list-style-type: none"> <li>a. Variant 1 – Relocate the I-5/Grapevine interchange approximately one (1) mile north of the existing interchange, with construction phased to capacity requirements. This proposal would further connect with planned streets, construct a 2-lane overpass ½ mile north of the existing interchange, close freeway access while maintaining the underpass at the existing Grapevine interchange and require the replacement of the existing California Vehicle Enforcement Facility (CVEF) on Tejon Ranchorp land west of the junction of I-5 and State Route (SR) 99 with a new access and bypass ramps connecting the CVEF to the freeway and a southbound auxiliary lane to the existing I-5/Laval Road interchange.</li> <li>b. Variant 2 – Would include similar improvements to Variant 1, except the location of the relocated I-5/Grapevine Interchange and the 2-lane overpass would be reversed. Further, this option would not require relocation of the existing California Vehicle Enforcement Facility (CVEF), but will require braided ramp improvements.</li> </ol> </li> </ol> <p>Through consultation with Caltrans, required improvements as identified above can be construed in phases as development occurs. The project proponent shall provide any phased improvement</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>provisions that have been approved by Caltrans to the County of Kern, and any such phased improvement provisions shall be included as conditions of approval for any applicable future tentative tract map, parcel map or commercial/industrial site plan development.</p> <p>MM 4.16-9 Prior to issuance of the 5,000th, 7,500th, and 10,000th residential building permits the project proponent shall prepare and submit to the County of Kern and to Caltrans an Internalization Rate Report for all AM and PM project related trips.</p> <p>The Internalization Rate Report shall assess whether internalization rates are progressing towards the projected total trip buildout internalization rates of 59.8 percent for the AM peak hour and 64.2 percent for the PM peak hour by confirming whether rates are within a certain percentage range of buildout total trip internalization rates.</p> <ul style="list-style-type: none"> <li>• 5,000 residential units – 35% (24.8% for AM and 29.2% for PM)</li> <li>• 7,500 residential units – 20% (39.8% for AM and 44.2% for PM)</li> <li>• 10,000 residential units – 10% (49.8% for AM and 54.2% for PM)</li> </ul> <p>If the required internalization rate report indicates that internalization rates are below projected buildout total trip AM and PM peak hour internalization rates by more than the percentages identified above, the project proponent shall consult with Caltrans and the project proponent shall elect to either (1) implement additional transportation demand management strategies as necessary to ensure that Caltrans facilities serving the project operate within applicable level of service standards, (2) provide fair share funding for impacts to state highway and freeway facilities not covered by the 2017 fair share funding agreements between the project proponent and Caltrans, or (3) implement a combination of (1) and (2) herein.</p>	
Impact 4.16-2: Conflict with an Applicable Congestion Management Program, Including, but Not Limited to Level of Service Standards and Travel Demand Measures, or Other Standards Established by the County Congestion Management Agency or Adopted County	Potentially significant	Implement Mitigation Measures MM 4.16-2, MM 4.16-3, and MM 4.16-6 through MM 4.16-9, as described above.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Threshold for Designated Roads or Highways			
Impact 4.16-3: Change in Air Traffic Patterns That Result in Substantial Safety Risks	Potentially significant	MM 4.16-10 The following statement shall be included as a note on the final map for all subdivisions, commercial site plans and included in the project Covenants, Conditions and Restrictions (CC&Rs): "This property is presently located under military training routes and a supersonic corridor subject to use by the Department of Defense. For that reason, the property may be subject to some of the annoyances or inconveniences associated with proximity to the routes and corridor (for example: noise, vibration, low-level over flight or sonic booms). Tejon Ranch currently operates a helistop and you may be exposed to noise impacts from helicopter overflights. Individual sensitivities to those annoyances can vary from person to person. You may wish to consider what annoyances, if any, are associated with the property before you complete your purchase and determine whether they are acceptable to you."	Less than significant
Impact 4.16-4: Substantially Increase Hazards Due to a Design Feature or Incompatible Uses	Potentially significant	Implement Mitigation Measures MM 4.16-1 through MM 4.16-7 and MM 4.16-9, as described above.	Less than significant
Impact 4.16-5: Result in Inadequate Emergency Access	Potentially significant	Implement Mitigation Measure MM 4.16-1, as described above. MM 4.16-11 A Construction Traffic Management Plan shall be submitted with each application for a project tract or parcel map to ensure that safe operating conditions are maintained on local roadways, freeway facilities and for all pedestrian, cycling, trail and transit facilities. At a minimum, the plan shall include: (a) the number and arrival and departure timing of construction truck and equipment trips; (b) the time and day of construction related street closures; (c) the circulation pattern that will be implemented to ensure compatibility with and the safety of other movement activities; (d) identification of detour routes and a signing plan for street closures; (e) the maintenance of safe and efficient emergency vehicle access routes; (f) manual traffic controls when necessary for safety or compatibility; (g) advance warning and posted signage concerning street closures; and (h) provisions for pedestrian and bicycle safety. The Construction Traffic Management Plan shall be subject to the review and approval of the Kern County Public Works Department in consultation with Caltrans, as applicable. A copy of the plan shall be submitted to local emergency response agencies and transit providers as directed by Kern County, and to Caltrans. These agencies shall be notified at least 30 days before the commencement of construction that would partially or fully obstruct public roadways.	Less than significant
Impact 4.16-6: Conflict with Adopted Policies, Plans, or	Potentially significant	Implement Mitigation Measures MM 4.16-2, MM 4.16-6, and MM 4.16-9, as described above.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Programs Supporting Alternative Transportation			
Impact 4.16-7: Contribute to Cumulative Transportation and Traffic Impacts	Significant	Implement Mitigation Measures MM 4.16-1 through MM 4.16-11, as described above. MM 4.16-12 Prior to the issuance of any building permit, the project proponent shall provide evidence that the following off-site impact mitigation requirements have been completed: Execute traffic impact mitigation agreements with Caltrans that identify project funding that will be paid to Caltrans to mitigate the project's incremental contribution to I-5 cumulative impacts to the Grapevine Grade in Kern County and Los Angeles County and cumulative impacts to State Route (SR) 138 in Los Angeles County.	Significant and unavoidable
<b>Utilities and Service Systems</b>			
Impact 4.17-1: Exceed Wastewater Treatment Requirements of the Applicable Regional Water Quality Control Board	Potentially significant	MM 4.17-1 Prior to issuance of building permits for the first residence or for commercial or industrial development, the project proponent will provide written verification of an agreement with the Tejon-Castac Water District for the method of managing and disposing of the project-generated biosolids. MM 4.17-2 Prior to issuance of building permits for commercial or industrial development, the project proponent will provide written verification of an agreement with the Tejon-Castac Water District for a pretreatment program that establishes wastewater pretreatment standards for commercial and industrial facilities under Code of Federal Regulations Title 40, Part 403. MM 4.17-3 The wastewater treatment facility operator will implement appropriate Best Management Practices (BMPs) for control of vectors such as mosquitos, rodents, and flies at the wastewater treatment facilities and recycled water storage ponds. The BMPs will include: i. Elimination of stagnant water; ii. Removal of emergent vegetation from edges of recycled water ponds; iii. Promotion of circulation within all recycled water ponds; and iv. Adequate stabilization of biosolids. MM 4.17-4 The building permit for the project wastewater treatment facilities will require implementation of Best Practicable Treatment or Control (BPTC) to protect groundwater. BPTCs would include nitrate reduction, ultraviolet (UV) disinfection to Title 22 standards, application of recycled water at rates not in excess of reasonable agronomic demand in areas where the project uses recycled water for non-residential irrigation, sludge handling and hauling off-site, certified operators, source water and discharge monitoring, and salinity management. MM 4.17-5 Prior to issuance of building permits for the first residence or for commercial or industrial development, the project proponent will provide written verification of an agreement with the Tejon-Castac Water District to implement a salinity education and management program	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		discouraging or prohibiting the use of products that may increase salinity in wastewater, such as self-regenerative water softeners and high-salts-containing cleaning products. MM 4.17-6 Prior to issuance of building permits for the first residence or for commercial or industrial development, the project proponent will provide written verification of an agreement with the Tejon-Castac Water District for the method of odor control at the wastewater treatment facilities.	
Impact 4.17-2: Require or Result in the Construction of New Water or Wastewater Treatment Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Effects	Potentially significant	Implement Mitigation Measures 4.17-1 through MM 4.17-6, as described above. MM 4.17-7 Prior to approval of each tentative tract map or site plan, the project proponent will provide a will-serve letter for wastewater service from the Tejon-Castac Water District, which will operate the project water and wastewater treatment facilities.	Less than significant
Impact 4.17-3: Require or Result in the Construction of New Stormwater Drainage Facilities or Expansion of Existing Facilities, the Construction of Which Could Cause Significant Environmental Effects	Potentially significant	Implement Mitigation Measures MM 4.9-1 through MM 4.9-4, as described in Section 4.9, <i>Hydrology and Water Quality</i> .	Less than significant
Impact 4.17-4: Have Sufficient Water Supplies Available to Serve the Project from Existing Entitlements and Resources, or Would New or are New or Expanded Entitlements Needed	Potentially significant	MM 4.17-8 Prior to issuance of any building permits or other development approvals, the project proponent shall provide written verification of compliance with applicable water efficiency design standards required by the California Uniform Building Code and the Grapevine Special Plan. MM 4.17-9 As part of any submittal application for final land division maps, commercial/industrial site plan reviews or Special Use Permits, the project proponent shall establish a Maximum Applied Water Allowance (MAWA) budget including indoor and outdoor use, for each type of residential and commercial/industrial use proposed. The MAWA budget allocation for each use shall be established prior to approval of any subdivision map or commercial/industrial site plan review. The total MAWA for each use shall be included as a note on any final map or commercial/industrial site plan. Establishment of a MAWA is not necessary for the processing of any financing maps associated with the project.	Less than significant

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>In addition, during each phase of development, the project proponent shall provide the Planning and Natural Resources Department with a summary of total water usage that has been previously allocated to the project site.</p> <p>MM 4.17-10 All building permit applications shall include compliance with applicable water conservation state laws and regulations, and local ordinances, including but not limited to those applicable to interior fixtures, tankless water heaters, and low-flow plumbing, compliance with which shall be used to meet the required Maximum Applied Water Allowance for each land use.</p> <p>MM 4.17-11 The project proponent shall record Conditions, Covenants and Restrictions or other construction notification on property deeds requiring compliance with the landscaping design criteria and specifications for plant materials, turf and mulch, irrigation systems, soil management, water features, and grading design described in the Grapevine Sustainability Principles and required by the Grapevine Special Plan.</p> <p>MM 4.17-12 Water Supply Verifications shall be prepared by Tejon-Castac Water District (TCWD), and included as a condition of approval for project subdivision maps. Prior to the expiration of the initial term of the Nickel Water agreement, the project proponent shall provide the Director of the Kern County Planning and Natural Resources Department with written evidence that the Nickel Water agreement has been extended for an additional period of 35 years in accordance with Section 10(a) of the agreement and that the Nickel Water is available to TCWD for project use. If the required written evidence is not provided by January 1, 2044, the County of Kern will stop issuing building permits until such time as it is provided.</p> <p>MM 4.17-13 Prior to approval of any site plan for any commercial/industrial site, the project proponent will obtain a will-serve letter for water services from the Tejon-Castac Water District that confirms the availability of water for the commercial/industrial site pursuant to the approved water Supply Verification for the subdivision map that includes the commercial site.</p> <p>MM 4.17-14 Prior to the issuance of a building permit for the construction of a potable water treatment facility within the Grapevine Specific Plan area, the permit applicant shall confirm in the building permit application that the facility will concentrate backwash water by means of a secondary filtration system, sedimentation basin or other backwash water concentration system of equal or greater effectiveness in reducing the volume of solids and increasing the amount of potable water generated by the water treatment process.</p> <p>MM 4.17-15 Tejon-Castac Water District water and wastewater facilities shall be utilized during initial development of the project site. Once capacity at existing Tejon-Castac Water District facilities reaches 75 percent, no additional building permits shall be issued by the County of Kern, until such time as necessary water and wastewater facilities are constructed on the project site to meet existing and future demand. During each proposed development stage, which may include</p>	

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<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>submittal of a land division action, commercial/industrial site plan or submittal of a Special Use Permit, the project proponent shall consult with Tejon-Castac Water District and provide in writing to the Planning and Natural Resources Department a summary of the District's capacity status and ability to meet the proposed development.</p>	
<p>Impact 4.17-5: Be Served by a Landfill with Sufficient Permitted Capacity to Accommodate the Project's Solid Waste Disposal Needs</p>	<p>Potentially significant</p>	<p>MM 4.17-16 Building permit applicants shall include measures to recycle demolition debris and construction wastes to the extent feasible. The applicant shall submit a Construction/ Demolition Recycling Plan to the Kern County Public Works Department for review and approval. An onsite recycling coordinator shall be designated by the project applicant to facilitate recycling of all construction waste through coordination with the onsite contractor, local waste haulers, and/or other facilities that recycle construction/demolition wastes. The onsite recycling coordinator will 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 and the site plan for the disposal area shall be provided to the Kern County Public Works Department prior to the issuance of a grading permit. Additional measures to be included in the Plan include:</p> <ul style="list-style-type: none"> <li>a) Reducing the quantity of waste generated by construction activities (e.g., by using onsite spoils and bulk site-clearing materials for existing project needs, such as backfill, mulch, erosion and sedimentation control), donating reusable materials to charitable organizations, or exporting materials for use in other construction projects;</li> <li>b) Maintaining a centralized information repository on site to identify which construction materials can be recycled and provide direction as to which sources will accept recyclable building and construction materials; and</li> <li>c) Requiring building or construction materials that are not recyclable to be taken to the nearest waste disposal facility. These materials shall be transported in bulk to reduce multiple truck trips, thereby reducing emissions generated from waste transportation.</li> </ul> <p>MM 4.17-17 In order to reduce the amount of ongoing waste disposal that will be taken to the landfill, the following shall be included as conditions of approval in tentative and final tract maps, and site plans: Implementation of mandatory three-cart residential solid waste collection within the project area. Universal collection will be serviced by the local franchise hauler and waste will be hauled to the nearest landfill, the Bena SLF, or as determined through coordination with Kern County Public Works Department. Household recyclable materials (i.e. cardboard, paper) and green waste (i.e. yard trimmings) shall be diverted from the landfill and hauled to the nearest recycling facility, as applicable. Green waste that can be composted on-site shall be reused within common area landscaping.</p>	<p>Less than significant</p>

Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation			
Impact	Level of Significance before Mitigation	Mitigation Measure(s)	Level of Significance after Mitigation
		<p>MM 4.17-18 Prior to recordation of the first tract or parcel map for division of the project site, the owner of the project site shall coordinate with Kern County for the implementation of universal solid waste collection on all residential and commercial development. The owner further shall agree to vote for (or waive his protest rights connected with the imposition of such) solid waste collection fees or assessments. It is a goal that this development will have solid waste collection, source separated curbside organic waste collection, source separated curbside recycling collection, and bulky item collection.</p> <p>MM 4.17-19 Prior to the first certificate of occupancy for any multifamily unit, the project proponent shall construct, segregated, onsite screened storage for the collection of multifamily residential solid waste and source separated recyclable materials. The area shall be distinct and in addition to any requirements for the development of multifamily units. The area shall not prevent security of the recyclables. Recycling area bins or containers must provide for the preclusion of vectors and offer protection against adverse environmental conditions, such as rain or snow, which might render the collected materials unmarketable. Driveways and/or travel aisles shall provide, at a minimum, unobstructed access for collection vehicles and personnel. A sign clearly identifying all recycling/solid waste collection and loading areas and the materials accepted shall be posted adjacent to all points of direct access to the area.</p> <p>MM 4.17-20 In order to reduce the amount of waste generated from the commercial sector being taken to the landfill, the following shall be incorporated into the Conditions, Covenants and Restrictions (CC&amp;Rs) for the project:</p> <ul style="list-style-type: none"> <li>Businesses generating four cubic yards or more of commercial solid waste per week are required to recycle and take one, or any combination of the following actions:</li> <li>1) Subscribe to source separated recycling service with a regional franchise hauler authorized to provide service for the area in which the business is located;</li> <li>2) Subscribe to a mixed solid waste recycling service with a regional franchise hauler authorized to provide service for the areas in which the business is located; and</li> <li>3) Self-recycle and certify compliance with Kern County Ordinance No. G-8337</li> <li>4) Undertake a combination of such measures, or such alternate measures as may be approved by the County to reduce the amount of waste from the commercial sector being taken to a landfill.</li> </ul> <p>MM 4.17-21 Prior to the first certificate of occupancy for any commercial development, the project proponent shall construct, subject to the review and approval of the Building Inspection Division of the Kern County Public Works Department and the Kern County Planning and Natural Resources Department, adequate, segregated, onsite screened storage for collection of commercial solid waste and source separated recyclable materials. The area shall be designed to be</p>	

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
		<p>architecturally compatible with the development and shall not prevent security of the recyclables. Recycling areas of the bins or containers must provide for the preclusion of vectors and offer protection against adverse environmental conditions, such as rain or snow, which might render the collected materials unmarketable. Driveways and/or travel aisles shall provide, at a minimum, unobstructed access for collection vehicles and personnel. A sign clearly identifying all recycling/solid waste collection and loading areas and the materials accepted shall be posted adjacent to all points of direct access to the area.</p> <p>MM 4.17-22 In order to provide efficient means of universal solid waste collection and reduce the impacts the project may have on roadways and increased traffic resulting from the local franchise hauler's collection routes, the following shall be incorporated into the design of the project:</p> <ul style="list-style-type: none"> <li>a) Streets within the project area shall be wide enough to safely accommodate the maneuverability of standard refuse collection vehicles, including the ability to turn around in cul-de-sac areas and the ability to make right turns without encroachment into on-coming traffic.</li> <li>b) Implementation of mandatory three-cart universal solid waste collection within the project area shall be used to prevent self-haulers from driving long distances to the nearest landfill to dispose of municipal solid waste. Universal solid waste collection will decrease vehicle trips to the landfill thereby reducing the amount of vehicle emissions that contribute to air pollution and smog.</li> </ul> <p>MM 4.17-23 Prior to the recordation of the first tract map the project proponent will designate and dedicate one contiguous area sufficient to accommodate up to a 20-acre facility, to be located in Plan Areas 6c through 6e, to Kern County Public Works Department for a transfer station to facilitate self-haul and special waste collection.</p>	
Impact 4.17-6: Comply with Federal, State, and Local Statutes and Regulations Related to Solid Waste	Potentially significant	Implement Mitigation Measures MM 4.17-16 through MM 4.17-23, as described above.	Less than significant
Impact 4.17-7: Exceed Capacity of an Energy Supplier to Meet the Project's Need	Less than significant	No mitigation is required.	Less than significant
Impact 4.17-8: Contribute to Cumulative Impacts to	Significant	Implement Mitigation Measures MMs 4.17-1 through MM 4.17-23, as described above, as well as Mitigation Measures MMs 4.9-1 through MM 4.9-4, as described in Section 4.9, <i>Hydrology and Water Quality</i> .	Significant and unavoidable

<b>Table 1-3. Summary of Impacts, Mitigation Measures, and Level of Significance after Mitigation</b>			
<b>Impact</b>	<b>Level of Significance before Mitigation</b>	<b>Mitigation Measure(s)</b>	<b>Level of Significance after Mitigation</b>
Utilities and Service Systems		<p>MM 4.17-24 Prior to issuance of any building permit, Tejon Ranchcorp shall enter into an agreement with Tejon-Castac Water District (TCWD) that ensures any Nickel Water transferred to the District from Tejon Ranchcorp for the Grapevine Project shall be utilized for the Grapevine Project. An original signed copy of the executed agreement shall be provided to the Planning and Natural Resources Department.</p> <p>No water supplies other than Nickel Water and recycled water may be used by the project until (i) all applicable permits for such use have been issued to TCWD; and (ii) all applicable California Environmental Quality Act review has been completed. Use of any other approved water shall fully comply with existing Federal, and State laws, including any locally adopted ordinances.</p>	